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**Evolved Universal Terrestrial
Radio Access (E-UTRA);
Requirements on User
Equipments (UEs) supporting a
release-independent frequency
band**

(Release 11)

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Technical Specification

3rd Generation Partnership Project; Technical Specification Group Radio Access Network; Evolved Universal Terrestrial Radio Access (E-UTRA); Requirements on User Equipments (UEs) Supporting a release-independent frequency band (Release 11)



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Foreword

This Technical Specification has been produced by the 3rd Generation Partnership Project (3GPP).

The contents of the present document are subject to continuing work within the TSG and may change following formal TSG approval. Should the TSG modify the contents of the present document, it will be re-released by the TSG with an identifying change of release date and an increase in version number as follows:

Version x.y.z

where:

- x the first digit:
 - 1 presented to TSG for information;
 - 2 presented to TSG for approval;
 - 3 or greater indicates TSG approved document under change control.
- y the second digit is incremented for all changes of substance, i.e. technical enhancements, corrections, updates, etc.
- z the third digit is incremented when editorial only changes have been incorporated in the document.

1 Scope

The present document specifies requirements on UEs supporting a frequency band and inter-band/intra-band CA configurations that are independent of release.

2 References

The following documents contain provisions which, through reference in this text, constitute provisions of the present document.

- References are either specific (identified by date of publication, edition number, version number, etc.) or non-specific.
- For a specific reference, subsequent revisions do not apply.
- For a non-specific reference, the latest version applies. In the case of a reference to a 3GPP document (including a GSM document), a non-specific reference implicitly refers to the latest version of that document *in the same Release as the present document*.

- [1] 3GPP TR 21.905: "Vocabulary for 3GPP Specifications".
- [2] 3GPP TS 36.101 (Release 12): "Evolved Universal Terrestrial Radio Access (E-UTRA); User Equipment (UE) Radio Transmission and Reception".
- [3] 3GPP TS 36.133 (Release 12): "Evolved Universal Terrestrial Radio Access (E-UTRA); Requirements for Support of Radio Resource Management".
- [4] 3GPP TS 36.307 (Release 12): "Evolved Universal Terrestrial Radio Access (E-UTRA); Requirements on User Equipments (UEs) Supporting a release-independent frequency band".
- [5] 3GPP TS 36.133 (Release 11): "Evolved Universal Terrestrial Radio Access (E-UTRA); Requirements for Support of Radio Resource Management".
- [6] 3GPP TS 36.101 (Release 11): "Evolved Universal Terrestrial Radio Access (E-UTRA); User Equipment (UE) Radio Transmission and Reception".
- [7] 3GPP TS 36.306 (Release 11): "Evolved Universal Terrestrial Radio Access (E-UTRA); User Equipment (UE) radio access capabilities".
- [8] 3GPP TS 36.101 (Release 10): "Evolved Universal Terrestrial Radio Access (E-UTRA); User Equipment (UE) Radio Transmission and Reception".

3 Definitions and Abbreviations

3.1 Definitions

For the purposes of the present document, the terms and definitions given in [1] apply.

3.2 Abbreviations

For the purposes of the present document, the following abbreviations apply:

3A General

TSG-RAN has agreed that the standardisation of new frequency bands may be independent of a release, and that the standardisations of new inter-band/intra-band CA configurations also may be independent of a release for Rel-10 upwards. However, in order to implement a UE that conforms to a particular release but supports a band of operation or carrier aggregation of particular inter-band/intra-band CA configurations that is specified in a later release, it is necessary to specify some extra requirements.

For example, Band 19 is contained in the Release 9 specifications. In order to implement a UE conforming to Release 8 but supporting Band 19, it is necessary for the UE to additionally conform to some parts of the Release 9 specifications, such as the radio frequency and radio resource management requirements for the Band 19.

For another example on carrier aggregations, CA configuration CA_1A-19A is contained in the Release 11 specifications. In order to implement a UE conforming to Release 10 but supporting the CA configuration CA_1A-19A, it is necessary for the UE to additionally conform to some parts of the Release 11 specifications, such as the radio frequency and radio resource management requirements for the CA configuration CA_1A-19A.

All frequency bands are fully specified in this release of the specifications. The present document does not contain any requirements for UEs supporting frequency bands independent of release.

NOTE: See NOTE in clause 4.4 in [6].

4 Void

5 Void

6 Void

Void

8 Void

9 Void

10 Void

11 Void

12 Void

13 Void

14 Void

15 Void

16 Void

17 Void

18 Void

19 CA configuration CA_41C Independent of Release

CA_41C is specified in Release 11 and Release 12 but is defined as a release-independent E-UTRA CA configuration for Rel-11 upwards.

19.1 Band 41 UE

UEs that conform to Release 11 and support CA_41C shall support the following requirements in Release 12 for both one uplink and simultaneous transmission on two uplinks.

19.1.1 RF Requirements

The UE shall comply with the following RF requirements for CA_41C specified in [2] which are listed in Table B.4.2-1 of [4].:

Table 19.1.1-1: Void

19.1.2 RRM Requirements

The UE shall comply with the RRM Requirements for CA_41C specified in [3] which are listed in Table B.2.2-1 of [4].

Table 19.1.1-2: Void

19.1.3 Demodulation performance and CSI reporting Requirements

The UE shall comply with the demodulation performance and CSI reporting requirements for CA_41C specified in [2], which are listed in Table B.3.2-1 of [4].

20 CA configuration CA_1A-19A Independent of Release

CA configuration CA_1A-19A with 2ULs/2DLs is specified in Release 12 but is defined as a release-independent CA configuration for Rel-11 upwards.

20.1 Void

20.2 CA_1A-19A UE for dual uplink

UEs that conform to Release 11 and support CA_1A-19A shall support the following requirements in Release 12.

20.2.1 RF Requirements

The UE shall comply with the RF requirements for CA_1A-19A specified in [2]. These requirements are:

Table 20.2.1-1: RF Requirements for dual-uplink CA_1A-19A UE

Section / Clause	Description
5.6A.1	Channel bandwidths per operating band for CA
6.2.2A	UE maximum output power for CA
6.2.5A	Configured transmitted Power for CA
6.3.2A	UE Minimum output power for CA
6.3.3A	UE Transmit OFF power for CA
6.3.4A	ON/OFF time mask for CA
6.3.5A	Power control for CA
6.5.1A	Frequency error for CA
6.5.2A	Transmit modulation quality for CA
6.6.1A	Occupied bandwidth for CA
6.6.2.1A	Spectrum emission mask for CA
6.6.2.3	Adjacent Channel Leakage Ratio
6.6.3.1A	Minimum requirements for CA (SE)
6.6.3.2A	Spurious emission band UE co-existence for CA
6.7.1A	Minimum requirement for CA (Transmit intermodulation)
7.3.1A	Minimum requirements (QPSK)
7.6.2.1A	Minimum requirements for CA (Out-of-band Blocking)

20.2.2 RRM Requirements

The UE shall comply with the RRM requirements for CA_1A-19A specified in [3] which are listed in Table B.2.x-x of [4].

20.2.3 Demodulation performance and CSI reporting Requirements

The UE shall comply with the demodulation performance and CSI reporting requirements for CA_1A-19A specified in [2], which are listed in Table B.3.x-x of [4].

21 CA configuration CA_7C Independent of Release

CA configuration CA_7C is specified in Release 11 and Release 12 but is defined as a release-independent CA configuration for Rel-10 upwards.

21.1 CA_7C UE

UEs that conform to Release 11 and support CA_7C shall support the following requirements in Release 12.

21.1.1 RF Requirements

The UE shall comply with the RF requirements for CA_7C specified in [2] which are listed in Table B.4.2-1 of [4].

Table 21.1.1-1: Void

21.1.2 RRM Requirements

The UE shall comply with the RRM Requirements for CA_7C specified in [3] which are listed in Table B.2.2-1 of [4].

Table 21.1.1-2: Void

21.1.3 Demodulation performance and CSI reporting Requirements

The UE shall comply with the tests applicable for CA_7C among the CA demodulation performance and CSI reporting requirements specified in [2] and listed in Table B.3.2-1 of [4].

22 Void

23 CA configuration CA_1A-18A Independent of Release

CA configuration CA_1A-18A is specified in Release 12 but is defined as a release-independent CA configuration for Rel-10 upwards.

23.1 CA_1A-18A UE

UEs that conform to Release 11 and support CA_1A-18A shall support the following requirements in Release 12.

23.1.1 RF Requirements

The UE shall comply with the RF requirements for CA_1A-18A specified in [2] which are listed in Table B.4.3-1 of [4].

Table 23.1.1-1: Void

23.1.2 RRM Requirements

The UE shall comply with the RRM requirements for CA_1A-18A specified in [3] which are listed in Table B.2.4-1 of [4].

Table 23.1.2-1: Void

23.1.3 Demodulation performance and CSI reporting Requirements

The UE shall comply with the tests applicable for CA_1A-18A among the CA demodulation performance and CSI reporting requirements specified in [2] and listed in Table B.3.2-1 of [4].

24 CA configuration CA_1A-21A Independent of Release

CA configuration CA_1A-21A with 2ULs/2DLs is specified in Release 12 but is defined as a release-independent CA configuration for Rel-11 upwards.

24.1 Void

24.2 CA_1A-21A UE for dual uplink

UEs that conform to Release 11 and support CA_1A-21A shall support the following requirements in Release 12.

24.2.1 RF Requirements

The UE shall comply with the RF requirements for CA_1A-21A specified in [2]. These requirements are:

Table 24.2.1-1: RF Requirements for dual-uplink CA_1A-21A UE

Section / Clause	Description
5.6A.1	Channel bandwidths per operating band for CA
6.2.2A	UE maximum output power for CA
6.2.5A	Configured transmitted Power for CA
6.3.2A	UE Minimum output power for CA
6.3.3A	UE Transmit OFF power for CA
6.3.4A	ON/OFF time mask for CA
6.3.5A	Power control for CA
6.5.1A	Frequency error for CA
6.5.2A	Transmit modulation quality for CA
6.6.1A	Occupied bandwidth for CA
6.6.2.1A	Spectrum emission mask for CA
6.6.2.3	Adjacent Channel Leakage Ratio
6.6.3.1A	Minimum requirements for CA (SE)
6.6.3.2A	Spurious emission band UE co-existence for CA
6.7.1A	Minimum requirement for CA (Transmit intermodulation)
7.3.1A	Minimum requirements (QPSK)
7.6.2.1A	Minimum requirements for CA (Out-of-band Blocking)

24.2.2 RRM Requirements

The UE shall comply with the RRM requirements for CA_1A-21A specified in [3] which are listed in Table B.2.x-x of [4].

24.2.3 Demodulation performance and CSI reporting Requirements

The UE shall comply with the demodulation performance and CSI reporting requirements for CA_1A-21A specified in [2], which are listed in Table B.3.x-x of [4].

25 CA configuration CA_3A-5A Independent of Release

CA configuration CA_3A-5A with 1UL/2DLs is specified in Release 11 and Release 12 but is defined as a release-independent CA configuration for Rel-10 upwards.

CA configuration CA_3A-5A with 2ULs/2DLs is specified in Release 12 but is defined as a release-independent CA configuration for Rel-11 upwards.

25.1 CA_3A-5A UE for single uplink

UEs that conform to Release 11 and support CA_3A-5A shall support the following requirements in Release 12.

25.1.1 RF Requirements

The UE shall comply with the RF requirements for CA_3A-5A specified in [2] which are listed in Table B.4.3-1 of [4].

Table 25.1.1-1: Void

25.1.2 RRM Requirements

The UE shall comply with the RRM requirements for CA_3A-5A specified in [3] which are listed in Table B.2.4-1 of [4].

Table 25.1.2-1: Void

25.1.3 Demodulation performance and CSI reporting Requirements

The UE shall comply with the tests applicable for CA_3A-5A among the CA demodulation performance and CSI reporting requirements specified in [2] and listed in Table B.3.2-1 of [4].

25.2 CA_3A-5A UE for dual uplink

UEs that conform to Release 11 and support CA_3A-5A shall support the following requirements in Release 12.

25.2.1 RF Requirements

The UE shall comply with the RF requirements for CA_3A-5A specified in [2]. These requirements are:

Table 25.2.1-1: RF Requirements for dual-uplink CA_3A-5A UE

Section / Clause	Description
5.6A.1	Channel bandwidths per operating band for CA
6.2.2A	UE maximum output power for CA
6.2.5A	Configured transmitted Power for CA
6.3.2A	UE Minimum output power for CA
6.3.3A	UE Transmit OFF power for CA
6.3.4A	ON/OFF time mask for CA
6.3.5A	Power control for CA
6.5.1A	Frequency error for CA
6.5.2A	Transmit modulation quality for CA
6.6.1A	Occupied bandwidth for CA
6.6.2.1A	Spectrum emission mask for CA
6.6.2.3	Adjacent Channel Leakage Ratio
6.6.3.1A	Minimum requirements for CA (SE)
6.6.3.2A	Spurious emission band UE co-existence for CA
6.7.1A	Minimum requirement for CA (Transmit intermodulation)
7.3.1A	Minimum requirements (QPSK)
7.6.2.1A	Minimum requirements for CA (Out-of-band Blocking)

26 CA configuration CA_3A-7A Independent of Release

CA configuration CA_3A-7A with 2ULs/2DLs is specified in Release 12 but is defined as a release-independent CA configuration for Rel-11 upwards.

26.1 Void

26.2 CA_3A-7A UE for dual uplink

UEs that conform to Release 11 and support CA_3A-7A shall support the following requirements in Release 12.

26.2.1 RF Requirements

The UE shall comply with the RF requirements for CA_3A-7A specified in [2]. These requirements are:

Table 26.2.1-1: RF Requirements for dual-uplink CA_3A-7A UE

Section / Clause	Description
5.6A.1	Channel bandwidths per operating band for CA
6.2.2A	UE maximum output power for CA
6.2.5A	Configured transmitted Power for CA
6.3.2A	UE Minimum output power for CA
6.3.3A	UE Transmit OFF power for CA
6.3.4A	ON/OFF time mask for CA
6.3.5A	Power control for CA
6.5.1A	Frequency error for CA
6.5.2A	Transmit modulation quality for CA
6.6.1A	Occupied bandwidth for CA
6.6.2.1A	Spectrum emission mask for CA
6.6.2.3	Adjacent Channel Leakage Ratio
6.6.3.1A	Minimum requirements for CA (SE)
6.6.3.2A	Spurious emission band UE co-existence for CA
6.7.1A	Minimum requirement for CA (Transmit intermodulation)
7.3.1A	Minimum requirements (QPSK)
7.6.2.1A	Minimum requirements for CA (Out-of-band Blocking)

26.2.2 RRM Requirements

The UE shall comply with the RRM requirements for CA_3A-7A specified in [3] which are listed in Table B.2.x-x of [4].

26.2.3 Demodulation performance and CSI reporting Requirements

The UE shall comply with the demodulation performance and CSI reporting requirements for CA_3A-7A specified in [2], which are listed in Table B.3.x-x of [4].

27 CA configuration CA_3A-20A Independent of Release

CA configuration CA_3A-20A with 1UL/2DLs is specified in Release 11 and Release 12 but is defined as a release-independent CA configuration for Rel-10 upwards.

CA configuration CA_3A-20A with 2ULs/2DLs is specified in Release 12 but is defined as a release-independent CA configuration for Rel-11 upwards.

27.1 CA_3A-20A UE for single uplink

UEs that conform to Release 11 and support CA_3A-20A shall support the following requirements in Release 12.

27.1.1 RF Requirements

The UE shall comply with the RF requirements for CA_3A-20A specified in [2]. These requirements are:

Table 27.1.1-1: RF Requirements for CA_3A-20A UE

Section / Clause	Description
5.5A	Operating bands for CA
5.6A1	Channel bandwidths per operating band for CA
6.2.5A	Configured transmitted Power for CA
7.3.1	Minimum requirements (QPSK)

27.1.2 RRM Requirements

The UE shall comply with the RRM requirements for CA_3A-20A specified in [3] which are listed in Table B.2.4-1 of [4].

27.1.3 Demodulation performance and CSI reporting Requirements

The UE shall comply with the tests applicable for CA_3A-20A among the CA demodulation performance and CSI reporting requirements specified in [2] and listed in Table B.3.2-1 of [4].

27.2 CA_3A-20A UE for dual uplink

UEs that conform to Release 11 and support CA_3A-20A shall support the following requirements in Release 12.

27.2.1 RF Requirements

The UE shall comply with the RF requirements for CA_3A-20A specified in [2]. These requirements are:

Table 27.2.1-1: RF Requirements for dual-uplink CA_3A-20A UE

Section / Clause	Description
5.6A.1	Channel bandwidths per operating band for CA
6.2.2A	UE maximum output power for CA
6.2.5A	Configured transmitted Power for CA
6.3.2A	UE Minimum output power for CA
6.3.3A	UE Transmit OFF power for CA
6.3.4A	ON/OFF time mask for CA
6.3.5A	Power control for CA
6.5.1A	Frequency error for CA
6.5.2A	Transmit modulation quality for CA
6.6.1A	Occupied bandwidth for CA
6.6.2.1A	Spectrum emission mask for CA
6.6.2.3	Adjacent Channel Leakage Ratio
6.6.3.1A	Minimum requirements for CA (SE)
6.6.3.2A	Spurious emission band UE co-existence for CA
6.7.1A	Minimum requirement for CA (Transmit intermodulation)
7.3.1A	Minimum requirements (QPSK)
7.6.2.1A	Minimum requirements for CA (Out-of-band Blocking)

27.2.2 RRM Requirements

The UE shall comply with the RRM requirements for CA_3A-20A specified in [3] which are listed in Table B.2.x-x of [4].

27.2.3 Demodulation performance and CSI reporting Requirements

The UE shall comply with the demodulation performance and CSI reporting requirements for CA_3A-20A specified in [2], which are listed in Table B.3.x-x of [4].

28 CA configuration CA_7A-20A Independent of Release

CA configuration CA_7A-20A with 2ULs/2DLs is specified in Release 12 but is defined as a release-independent CA configuration for Rel-11 upwards.

28.1 Void

28.2 CA_7A-20A UE for dual uplink

UEs that conform to Release 11 and support CA_7A-20A shall support the following requirements in Release 12.

28.2.1 RF Requirements

The UE shall comply with the RF requirements for CA_7A-20A specified in [2]. These requirements are:

Table 28.2.1-1: RF Requirements for dual-uplink CA_7A-20A UE

Section / Clause	Description
5.6A.1	Channel bandwidths per operating band for CA
6.2.2A	UE maximum output power for CA
6.2.5A	Configured transmitted Power for CA
6.3.2A	UE Minimum output power for CA
6.3.3A	UE Transmit OFF power for CA
6.3.4A	ON/OFF time mask for CA
6.3.5A	Power control for CA
6.5.1A	Frequency error for CA
6.5.2A	Transmit modulation quality for CA
6.6.1A	Occupied bandwidth for CA
6.6.2.1A	Spectrum emission mask for CA
6.6.2.3	Adjacent Channel Leakage Ratio
6.6.3.1A	Minimum requirements for CA (SE)
6.6.3.2A	Spurious emission band UE co-existence for CA
6.7.1A	Minimum requirement for CA (Transmit intermodulation)
7.3.1A	Minimum requirements (QPSK)
7.6.2.1A	Minimum requirements for CA (Out-of-band Blocking)

28.2.2 RRM Requirements

The UE shall comply with the RRM requirements for CA_7A-20A specified in [3] which are listed in Table B.2.x-x of [4].

28.2.3 Demodulation performance and CSI reporting Requirements

The UE shall comply with the demodulation performance and CSI reporting requirements for CA_7A-20A specified in [2], which are listed in Table B.3.x-x of [4].

29 Void

30 Void

31 CA configuration CA_2A-29A Independent of Release

CA configuration CA_2A-29A is specified in Release 11 and Release 12 but is defined as a release-independent CA configuration for Rel-10 upwards.

31.1 CA_2A-29A UE

UEs that conform to Release 11 and support CA_2A-29A shall support the following requirements in Release 12.

31.1.1 RF Requirements

The UE shall comply with the RF requirements for CA_2A-29A specified in [2] which are listed in Table B.4.4-1 of [4].

Table 31.1.1-1: Void

31.1.2 RRM Requirements

The UE shall comply with the RRM requirements for CA_2A-29A specified in [3] which are listed in Table B.2.4-1 of [4].

31.1.3 Demodulation performance and CSI reporting Requirements

The UE shall comply with the tests applicable for CA_2A-29A among the CA demodulation performance and CSI reporting requirements specified in [2] and listed in Table B.3.2-1 of [4].

32 CA configuration CA_4A-29A Independent of Release

CA configuration CA_4A-29A is specified in Release 11 and Release 12 but is defined as a release-independent CA configuration for Rel-10 upwards.

32.1 CA_4A-29A UE

UEs that conform to Release 11 and support CA_4A-29A shall support the following requirements in Release 12.

32.1.1 RF Requirements

The UE shall comply with the RF requirements for CA_4A-29A specified in [2] which are listed in Table B.4.4-1 of [4].

Table 32.1.1-1: Void

32.1.2 RRM Requirements

The UE shall comply with the RRM requirements for CA_4A-29A specified in [3] which are listed in Table B.2.4-1 of [4].

32.1.3 Demodulation performance and CSI reporting Requirements

The UE shall comply with the tests applicable for CA_4A-29A among the CA demodulation performance and CSI reporting requirements specified in [2] and listed in Table B.3.2-1 of [4].

33 CA configuration CA_3A-8A Independent of Release

CA configuration CA_3A-8A with 1UL/2DLs is specified in Release 11 and Release 12 but is defined as a release-independent CA configuration for Rel-10 upwards.

CA configuration CA_3A-8A with 2ULs/2DLs is specified in Release 12 but is defined as a release-independent CA configuration for Rel-11 upwards.

33.1 CA_3A-8A UE for single uplink

UEs that conform to Release 11 and support CA_3A-8A shall support the following requirements in Release 12.

33.1.1 RF Requirements

The UE shall comply with the RF requirements for CA_3A-8A specified in [2]. These requirements are:

Table 33.1.1-1: RF Requirements for CA_3A-8A UE

Section / Clause	Description
5.5A	Operating bands for CA
5.6A1	Channel bandwidths per operating band for CA
6.2.5A	Configured transmitted Power for CA
7.3.1	Minimum requirements (QPSK)

33.1.2 RRM Requirements

The UE shall comply with the RRM requirements for CA_3A-8A specified in [3] which are listed in Table B.2.4-1 of [4].

33.1.3 Demodulation performance and CSI reporting Requirements

The UE shall comply with the tests applicable for CA_3A-8A among the CA demodulation performance and CSI reporting requirements specified in [2] and listed in Table B.3.2-1 of [4].

33.2 CA_3A-8A UE for dual uplink

UEs that conform to Release 11 and support CA_3A-8A shall support the following requirements in Release 12.

33.2.1 RF Requirements

The UE shall comply with the RF requirements for CA_3A-8A specified in [2]. These requirements are:

Table 33.2.1-1: RF Requirements for dual-uplink CA_3A-8A UE

Section / Clause	Description
5.6A.1	Channel bandwidths per operating band for CA
6.2.2A	UE maximum output power for CA
6.2.5A	Configured transmitted Power for CA
6.3.2A	UE Minimum output power for CA
6.3.3A	UE Transmit OFF power for CA
6.3.4A	ON/OFF time mask for CA
6.3.5A	Power control for CA
6.5.1A	Frequency error for CA
6.5.2A	Transmit modulation quality for CA
6.6.1A	Occupied bandwidth for CA
6.6.2.1A	Spectrum emission mask for CA
6.6.2.3	Adjacent Channel Leakage Ratio
6.6.3.1A	Minimum requirements for CA (SE)
6.6.3.2A	Spurious emission band UE co-existence for CA
6.7.1A	Minimum requirement for CA (Transmit intermodulation)
7.3.1A	Minimum requirements (QPSK)
7.6.2.1A	Minimum requirements for CA (Out-of-band Blocking)

33.2.2 RRM Requirements

The UE shall comply with the RRM requirements for CA_3A-8A specified in [3] which are listed in Table B.2.x-x of [4].

33.2.3 Demodulation performance and CSI reporting Requirements

The UE shall comply with the demodulation performance and CSI reporting requirements for CA_3A-8A specified in [2], which are listed in Table B.3.x-x of [4].

34 CA configuration CA_4A-5A Independent of Release

CA configuration CA_4A-5A is specified in Release 11 and Release 12 but is defined as a release-independent CA configuration for Rel-10 upwards.

34.1 CA_4A-5A UE

UEs that conform to Release 10 and support CA_4A-5A shall support the following requirements in Release 12.

34.1.1 RF Requirements

The UE shall comply with the RF requirements for CA_4A-5A specified in [2] which are listed in Table B.4.3-1 of [4].

Table 34.1.1-1:

34.1.2 RRM Requirements

The UE shall comply with the RRM requirements for CA_4A-5A specified in [3] which are listed in Table B.2.4-1 of [4].

Table 34.1.2-1: Void

34.1.3 Demodulation performance and CSI reporting Requirements

The UE shall comply with the tests applicable for CA_4A-5A among the CA demodulation performance and CSI reporting requirements specified in [2] and listed in Table B.3.2-1 of [4].

35 CA configuration CA_4A-12A Independent of Release

CA configuration CA_4A-12A with 1UL/2DLs is specified in Release 11 and Release 12 but is defined as a release-independent CA configuration for Rel-10 upwards.

CA configuration CA_4A-12A with 2ULs/2DLs is specified in Release 12 but is defined as a release-independent CA configuration for Rel-11 upwards.

35.1 CA_4A-12A UE for single uplink

UEs that conform to Release 11 and support CA_4A-12A shall support the following requirements in Release 12.

35.1.1 RF Requirements

The UE shall comply with the RF requirements for CA_4A-12A specified in [2] which are listed in Table B.4.3-1 of [4].

Table 35.1.1-1: Void

35.1.2 RRM Requirements

The UE shall comply with the RRM requirements for CA_4A-12A specified in [3] which are listed in Table B.2.4-1 of [4].

Table 35.1.2-1: Void

35.1.3 Demodulation performance and CSI reporting Requirements

The UE shall comply with the tests applicable for CA_4A-12A among the CA demodulation performance and CSI reporting requirements specified in [2] and listed in Table B.3.2-1 of [4].

35.2 CA_4A-12A UE for dual uplink

UEs that conform to Release 11 and support CA_4A-12A shall support the following requirements in Release 12.

35.2.1 RF Requirements

The UE shall comply with the RF requirements for CA_4A-12A specified in [2]. These requirements are:

Table 35.2.1-1: RF Requirements for dual-uplink CA_4A-12A UE

Section / Clause	Description
5.6A.1	Channel bandwidths per operating band for CA
6.2.2A	UE maximum output power for CA
6.2.5A	Configured transmitted Power for CA
6.3.2A	UE Minimum output power for CA
6.3.3A	UE Transmit OFF power for CA
6.3.4A	ON/OFF time mask for CA
6.3.5A	Power control for CA
6.5.1A	Frequency error for CA
6.5.2A	Transmit modulation quality for CA
6.6.1A	Occupied bandwidth for CA
6.6.2.1A	Spectrum emission mask for CA
6.6.2.3	Adjacent Channel Leakage Ratio
6.6.3.1A	Minimum requirements for CA (SE)
6.6.3.2A	Spurious emission band UE co-existence for CA
6.7.1A	Minimum requirement for CA (Transmit intermodulation)
7.3.1A	Minimum requirements (QPSK)
7.6.2.1A	Minimum requirements for CA (Out-of-band Blocking)

35.2.2 RRM Requirements

The UE shall comply with the RRM requirements for CA_4A-12A specified in [3] which are listed in Table B.2.x-x of [4].

35.2.3 Demodulation performance and CSI reporting Requirements

The UE shall comply with the demodulation performance and CSI reporting requirements for CA_4A-12A specified in [2], which are listed in Table B.3.x-x of [4].

36 CA configuration CA_4A-13A Independent of Release

CA configuration CA_4A-13A with 2ULs/2DLs is specified in Release 12 but is defined as a release-independent CA configuration for Rel-11 upwards.

36.1 Void

36.2 CA_4A-13A UE for dual uplink

UEs that conform to Release 11 and support CA_4A-13A shall support the following requirements in Release 12.

36.2.1 RF Requirements

The UE shall comply with the RF requirements for CA_4A-13A specified in [2]. These requirements are:

Table 36.2.1-1: RF Requirements for dual-uplink CA_4A-13A UE

Section / Clause	Description
5.6A.1	Channel bandwidths per operating band for CA
6.2.2A	UE maximum output power for CA
6.2.5A	Configured transmitted Power for CA
6.3.2A	UE Minimum output power for CA
6.3.3A	UE Transmit OFF power for CA
6.3.4A	ON/OFF time mask for CA
6.3.5A	Power control for CA
6.5.1A	Frequency error for CA
6.5.2A	Transmit modulation quality for CA
6.6.1A	Occupied bandwidth for CA
6.6.2.1A	Spectrum emission mask for CA
6.6.2.3	Adjacent Channel Leakage Ratio
6.6.3.1A	Minimum requirements for CA (SE)
6.6.3.2A	Spurious emission band UE co-existence for CA
6.7.1A	Minimum requirement for CA (Transmit intermodulation)
7.3.1A	Minimum requirements (QPSK)
7.6.2.1A	Minimum requirements for CA (Out-of-band Blocking)

36.2.2 RRM Requirements

The UE shall comply with the RRM requirements for CA_4A-13A specified in [3] which are listed in Table B.2.x-x of [4].

36.2.3 Demodulation performance and CSI reporting Requirements

The UE shall comply with the demodulation performance and CSI reporting requirements for CA_4A-13A specified in [2], which are listed in Table B.3.x-x of [4].

37 CA configuration CA_4A-17A Independent of Release

CA configuration CA_4A-17A with 2ULs/2DLs is specified in Release 12 but is defined as a release-independent CA configuration for Rel-11 upwards.

37.1 Void

37.2 CA_4A-17A UE for dual uplink

UEs that conform to Release 11 and support CA_4A-17A shall support the following requirements in Release 12.

37.2.1 RF Requirements

The UE shall comply with the RF requirements for CA_4A-17A specified in [2]. These requirements are:

Table 37.2.1-1: RF Requirements for dual-uplink CA_4A-17A UE

Section / Clause	Description
5.6A.1	Channel bandwidths per operating band for CA
6.2.2A	UE maximum output power for CA
6.2.5A	Configured transmitted Power for CA
6.3.2A	UE Minimum output power for CA
6.3.3A	UE Transmit OFF power for CA
6.3.4A	ON/OFF time mask for CA
6.3.5A	Power control for CA
6.5.1A	Frequency error for CA
6.5.2A	Transmit modulation quality for CA
6.6.1A	Occupied bandwidth for CA
6.6.2.1A	Spectrum emission mask for CA
6.6.2.3	Adjacent Channel Leakage Ratio
6.6.3.1A	Minimum requirements for CA (SE)
6.6.3.2A	Spurious emission band UE co-existence for CA
6.7.1A	Minimum requirement for CA (Transmit intermodulation)
7.3.1A	Minimum requirements (QPSK)
7.6.2.1A	Minimum requirements for CA (Out-of-band Blocking)

37.2.2 RRM Requirements

The UE shall comply with the RRM requirements for CA_4A-17A specified in [3] which are listed in Table B.2.x-x of [4].

37.2.3 Demodulation performance and CSI reporting Requirements

The UE shall comply with the demodulation performance and CSI reporting requirements for CA_4A-17A specified in [2], which are listed in Table B.3.x-x of [4].

38 CA configuration CA_5A-12A Independent of Release

CA configuration CA_5A-12A with 2ULs/2DLs is specified in Release 12 but is defined as a release-independent CA configuration for Rel-11 upwards.

38.1 Void

38.2 CA_5A-12A UE for dual uplink

UEs that conform to Release 11 and support CA_5A-12A shall support the following requirements in Release 12.

38.2.1 RF Requirements

The UE shall comply with the RF requirements for CA_5A-12A specified in [2]. These requirements are:

Table 38.2.1-1: RF Requirements for dual-uplink CA_5A-12A UE

Section / Clause	Description
5.6A.1	Channel bandwidths per operating band for CA
6.2.2A	UE maximum output power for CA
6.2.5A	Configured transmitted Power for CA
6.3.2A	UE Minimum output power for CA
6.3.3A	UE Transmit OFF power for CA
6.3.4A	ON/OFF time mask for CA
6.3.5A	Power control for CA
6.5.1A	Frequency error for CA
6.5.2A	Transmit modulation quality for CA
6.6.1A	Occupied bandwidth for CA
6.6.2.1A	Spectrum emission mask for CA
6.6.2.3	Adjacent Channel Leakage Ratio
6.6.3.1A	Minimum requirements for CA (SE)
6.6.3.2A	Spurious emission band UE co-existence for CA
6.7.1A	Minimum requirement for CA (Transmit intermodulation)
7.3.1A	Minimum requirements (QPSK)
7.6.2.1A	Minimum requirements for CA (Out-of-band Blocking)

38.2.2 RRM Requirements

The UE shall comply with the RRM requirements for CA_5A-12A specified in [3] which are listed in Table B.2.x-x of [4].

38.2.3 Demodulation performance and CSI reporting Requirements

The UE shall comply with the demodulation performance and CSI reporting requirements for CA_5A-12A specified in [2], which are listed in Table B.3.x-x of [4].

39 CA configuration CA_5A-17A Independent of Release

CA configuration CA_5A-17A with 2ULs/2DLs is specified in Release 12 but is defined as a release-independent CA configuration for Rel-11 upwards.

39.1 Void

39.2 CA_5A-17A UE for dual uplink

UEs that conform to Release 11 and support CA_5A-17A shall support the following requirements in Release 12.

39.2.1 RF Requirements

The UE shall comply with the RF requirements for CA_5A-17A specified in [2]. These requirements are:

Table 39.2.1-1: RF Requirements for dual-uplink CA_5A-17A UE

Section / Clause	Description
5.6A.1	Channel bandwidths per operating band for CA
6.2.2A	UE maximum output power for CA
6.2.5A	Configured transmitted Power for CA
6.3.2A	UE Minimum output power for CA
6.3.3A	UE Transmit OFF power for CA
6.3.4A	ON/OFF time mask for CA
6.3.5A	Power control for CA
6.5.1A	Frequency error for CA
6.5.2A	Transmit modulation quality for CA
6.6.1A	Occupied bandwidth for CA
6.6.2.1A	Spectrum emission mask for CA
6.6.2.3	Adjacent Channel Leakage Ratio
6.6.3.1A	Minimum requirements for CA (SE)
6.6.3.2A	Spurious emission band UE co-existence for CA
6.7.1A	Minimum requirement for CA (Transmit intermodulation)
7.3.1A	Minimum requirements (QPSK)
7.6.2.1A	Minimum requirements for CA (Out-of-band Blocking)

39.2.2 RRM Requirements

The UE shall comply with the RRM requirements for CA_5A-17A specified in [3] which are listed in Table B.2.x-x of [4].

39.2.3 Demodulation performance and CSI reporting Requirements

The UE shall comply with the demodulation performance and CSI reporting requirements for CA_5A-17A specified in [2], which are listed in Table B.3.x-x of [4].

40 CA configuration CA_4A-7A Independent of Release

CA configuration CA_4A-7A with 2ULs/2DLs is specified in Release 12 but is defined as a release-independent CA configuration for Rel-11 upwards.

40.1 Void

40.2 CA_4A-7A UE for dual uplink

UEs that conform to Release 11 and support CA_4A-7A shall support the following requirements in Release 12.

40.2.1 RF Requirements

The UE shall comply with the RF requirements for CA_4A-7A specified in [2]. These requirements are:

Table 40.2.1-1: RF Requirements for dual-uplink CA_4A-7A UE

Section / Clause	Description
5.6A.1	Channel bandwidths per operating band for CA
6.2.2A	UE maximum output power for CA
6.2.5A	Configured transmitted Power for CA
6.3.2A	UE Minimum output power for CA
6.3.3A	UE Transmit OFF power for CA
6.3.4A	ON/OFF time mask for CA
6.3.5A	Power control for CA
6.5.1A	Frequency error for CA
6.5.2A	Transmit modulation quality for CA
6.6.1A	Occupied bandwidth for CA
6.6.2.1A	Spectrum emission mask for CA
6.6.2.3	Adjacent Channel Leakage Ratio
6.6.3.1A	Minimum requirements for CA (SE)
6.6.3.2A	Spurious emission band UE co-existence for CA
6.7.1A	Minimum requirement for CA (Transmit intermodulation)
7.3.1A	Minimum requirements (QPSK)
7.6.2.1A	Minimum requirements for CA (Out-of-band Blocking)

40.2.2 RRM Requirements

The UE shall comply with the RRM requirements for CA_4A-7A specified in [3] which are listed in Table B.2.x-x of [4].

40.2.3 Demodulation performance and CSI reporting Requirements

The UE shall comply with the demodulation performance and CSI reporting requirements for CA_4A-7A specified in [2], which are listed in Table B.3.x-x of [4].⁴¹ Void

42 Band 30 Independent of Release

Band 30 is specified in Release 12 but is defined as a release-independent frequency band. This approach aligns the Band 30 with other frequency bands when considering features that have to be supported in different releases.

42.1 Band 30 UE

UEs that conform to Release 11 and support Band 30 shall support the following requirements in Release 12.

42.1.1 RF Requirements

The UE shall comply with the RF requirements for Band 30 specified in [2] which are listed in Table B.4.1-1 of [4].

Table 42.1.1-1: Void

42.1.2 RRM Requirements

The UE shall comply with the RRM requirements for Band 30 specified in [3] which are listed in Table B.2.1-1 of [4].

Table 42.1.2-1: Void

42.1.3 Void

43 Band 31 Independent of Release

Band 31 is specified in Release 12 but is defined as a release-independent frequency band. This approach aligns the Band 31 with other frequency bands when considering features that have to be supported in different releases.

43.1 Band 31 UE

UEs that conform to Release 11 and support Band 31 shall support the following requirements in Release 12.

43.1.1 RF Requirements

The UE shall comply with the RF requirements for Band 31 specified [2] which are listed in Table B.4.1-1 of [4].

Table 43.1.1-1: Void

43.1.2 RRM Requirements

The UE shall comply with the RRM requirements for Band 31, for 5 MHz only, specified in [3] which are listed in Table B.2.1-1 of [4].

Table 43.1.2-1: Void

43.1.3 Demodulation performance and CSI reporting Requirements

The UE shall comply with the subset of demodulation performance and CSI reporting requirements specified in [2] which are listed in Table 43.1.3-2.

Table 43.1.3-1: Void

Table 43.1.3-2: Demodulation performance and CSI reporting requirements for Band 31 UE

Section / Clause	Description	Test case
8.2.1.1.1	Single-antenna port performance	6, 7, 8
8.2.1.2.1	Transmit diversity performance	1
8.2.1.3.1	Open-loop spatial multiplexing performance	2
8.2.1.4.1	Closed-loop spatial multiplexing performance	1A
8.2.1.4.2	Closed-loop spatial multiplexing performance	2A
8.5.1.2.1	Demodulation of PHICH	1A
9.2.1.1	CQI reporting definition under AWGN conditions	Table 9.2.1.1-2
9.3.2.1.1	CQI reporting under fading conditions	Table 9.3.2.1.1-3

44 CA configuration CA_1A-8A Independent of Release

CA configuration CA_1A-8A with 1UL/2DLs is specified in Release 12 but is defined as a release-independent CA configuration for Rel-10 upwards.

CA configuration CA_1A-8A with 2ULs/2DLs is specified in Release 12 but is defined as a release-independent CA configuration for Rel-11 upwards.

44.1 CA_1A-8A UE for single uplink

UEs that conform to Release 11 and support CA_1A-8A shall support the following requirements in Release 12.

44.1.1 RF Requirements

The UE shall comply with the RF requirements for CA_1A-8A specified in [2] which are listed in Table B.4.3-1 of [4].

Table 44.1.1-1: Void

44.1.2 RRM Requirements

The UE shall comply with the RRM requirements for CA_1A-8A specified in [3] which are listed in Table B.2.4-1 of [4].

Table 44.1.2-1: Void

44.1.3 Demodulation performance and CSI reporting Requirements

The UE shall comply with the tests applicable for CA_1A-8A among the CA demodulation performance and CSI reporting requirements specified in [2] and listed in Table B.3.2-1 of [4].

44.2 CA_1A-8A UE for dual uplink

UEs that conform to Release 11 and support CA_1A-8A shall support the following requirements in Release 12.

44.2.1 RF Requirements

The UE shall comply with the RF requirements for CA_1A-8A specified in [2]. These requirements are:

Table 44.2.1-1: RF Requirements for dual-uplink CA_1A-8A UE

Section / Clause	Description
5.6A.1	Channel bandwidths per operating band for CA
6.2.2A	UE maximum output power for CA
6.2.5A	Configured transmitted Power for CA
6.3.2A	UE Minimum output power for CA
6.3.3A	UE Transmit OFF power for CA
6.3.4A	ON/OFF time mask for CA
6.3.5A	Power control for CA
6.5.1A	Frequency error for CA
6.5.2A	Transmit modulation quality for CA
6.6.1A	Occupied bandwidth for CA
6.6.2.1A	Spectrum emission mask for CA
6.6.2.3	Adjacent Channel Leakage Ratio
6.6.3.1A	Minimum requirements for CA (SE)
6.6.3.2A	Spurious emission band UE co-existence for CA
6.7.1A	Minimum requirement for CA (Transmit intermodulation)
7.3.1A	Minimum requirements (QPSK)
7.6.2.1A	Minimum requirements for CA (Out-of-band Blocking)

44.2.2 RRM Requirements

The UE shall comply with the RRM requirements for CA_1A-8A specified in [3] which are listed in Table B.2.x-x of [4].

44.2.3 Demodulation performance and CSI reporting Requirements

The UE shall comply with the demodulation performance and CSI reporting requirements for CA_1A-8A specified in [2], which are listed in Table B.3.x-x of [4].

45 CA configuration CA_2A-13A Independent of Release

CA configuration CA_2A-13A with 1UL/2DLs is specified in Release 12 but is defined as a release-independent CA configuration for Rel-10 upwards.

CA configuration CA_2A-13A with 2ULs/2DLs is specified in Release 12 but is defined as a release-independent CA configuration for Rel-11 upwards.

45.1 CA_2A-13A UE for single uplink

UEs that conform to Release 11 and support CA_2A-13A shall support the following requirements in Release 12.

45.1.1 RF Requirements

The UE shall comply with the RF requirements for CA_2A-13A specified in [2] which are listed in Table B.4.3-1 of [4].

Table 45.1.1-1: Void

45.1.2 RRM Requirements

The UE shall comply with the RRM requirements for CA_2A-13A specified in [3] which are listed in Table B.2.4-1 of [4].

Table 45.1.2-1: Void

45.1.3 Demodulation performance and CSI reporting Requirements

The UE shall comply with the tests applicable for CA_2A-13A among the CA demodulation performance and CSI reporting requirements specified in [2] and listed in Table B.3.2-1 of [4].

45.2 CA_2A-13A UE for dual uplink

UEs that conform to Release 11 and support CA_2A-13A shall support the following requirements in Release 12.

45.2.1 RF Requirements

The UE shall comply with the RF requirements for CA_2A-13A specified in [2]. These requirements are:

Table 45.2.1-1: RF Requirements for dual-uplink CA_2A-13A UE

Section / Clause	Description
5.6A.1	Channel bandwidths per operating band for CA
6.2.2A	UE maximum output power for CA
6.2.5A	Configured transmitted Power for CA
6.3.2A	UE Minimum output power for CA
6.3.3A	UE Transmit OFF power for CA
6.3.4A	ON/OFF time mask for CA
6.3.5A	Power control for CA
6.5.1A	Frequency error for CA
6.5.2A	Transmit modulation quality for CA
6.6.1A	Occupied bandwidth for CA
6.6.2.1A	Spectrum emission mask for CA
6.6.2.3	Adjacent Channel Leakage Ratio
6.6.3.1A	Minimum requirements for CA (SE)
6.6.3.2A	Spurious emission band UE co-existence for CA
6.7.1A	Minimum requirement for CA (Transmit intermodulation)
7.3.1A	Minimum requirements (QPSK)
7.6.2.1A	Minimum requirements for CA (Out-of-band Blocking)

45.2.2 RRM Requirements

The UE shall comply with the RRM requirements for CA_2A-13A specified in [3] which are listed in Table B.2.x-x of [4].

45.2.3 Demodulation performance and CSI reporting Requirements

The UE shall comply with the demodulation performance and CSI reporting requirements for CA_2A-13A specified in [2], which are listed in Table B.3.x-x of [4].

46 CA configuration CA_3A-19A Independent of Release

CA configuration CA_3A-19A with 1UL/2DLs is specified in Release 12 but is defined as a release-independent CA configuration for Rel-10 upwards.

CA configuration CA_3A-19A with 2ULs/2DLs is specified in Release 12 but is defined as a release-independent CA configuration for Rel-11 upwards.

46.1 CA_3A-19A UE for single uplink

UEs that conform to Release 11 and support CA_3A-19A shall support the following requirements in Release 12.

46.1.1 RF Requirements

The UE shall comply with the RF requirements for CA_3A-19A specified in [2] which are listed in Table B.4.3-1 of [4].

Table 46.1.1-1: Void

46.1.2 RRM Requirements

The UE shall comply with the RRM requirements for CA_3A-19A specified in [3] which are listed in Table B.2.4-1 of [4].

Table 46.1.2-1: Void

46.1.3 Demodulation performance and CSI reporting Requirements

The UE shall comply with the tests applicable for CA_3A-19A among the CA demodulation performance and CSI reporting requirements specified in [2] and listed in Table B.3.2-1 of [4].

46.2 CA_3A-19A UE for dual uplink

UEs that conform to Release 11 and support CA_3A-19A shall support the following requirements in Release 12.

46.2.1 RF Requirements

The UE shall comply with the RF requirements for CA_3A-19A specified in [2]. These requirements are:

Table 46.2.1-1: RF Requirements for dual-uplink CA_3A-19A UE

Section / Clause	Description
5.6A.1	Channel bandwidths per operating band for CA
6.2.2A	UE maximum output power for CA
6.2.5A	Configured transmitted Power for CA
6.3.2A	UE Minimum output power for CA
6.3.3A	UE Transmit OFF power for CA
6.3.4A	ON/OFF time mask for CA
6.3.5A	Power control for CA
6.5.1A	Frequency error for CA
6.5.2A	Transmit modulation quality for CA
6.6.1A	Occupied bandwidth for CA
6.6.2.1A	Spectrum emission mask for CA
6.6.2.3	Adjacent Channel Leakage Ratio
6.6.3.1A	Minimum requirements for CA (SE)
6.6.3.2A	Spurious emission band UE co-existence for CA
6.7.1A	Minimum requirement for CA (Transmit intermodulation)
7.3.1A	Minimum requirements (QPSK)
7.6.2.1A	Minimum requirements for CA (Out-of-band Blocking)

46.2.2 RRM Requirements

The UE shall comply with the RRM requirements for CA_3A-19A specified in [3] which are listed in Table B.2.x-x of [4].

46.2.3 Demodulation performance and CSI reporting Requirements

The UE shall comply with the demodulation performance and CSI reporting requirements for CA_3A-19A specified in [2], which are listed in Table B.3.x-x of [4].

47 CA configuration CA_3A-26A Independent of Release

CA configuration CA_3A-26A with 1UL/2DLs is specified in Release 12 but is defined as a release-independent CA configuration for Rel-10 upwards.

CA configuration CA_3A-26A with 2ULs/2DLs is specified in Release 12 but is defined as a release-independent CA configuration for Rel-11 upwards.

47.1 CA_3A-26A UE for single uplink

UEs that conform to Release 11 and support CA_3A-26A shall support the following requirements in Release 12.

47.1.1 RF Requirements

The UE shall comply with the RF requirements for CA_3A-26A specified in [2] which are listed in Table B.4.3-1 of [4].

Table 47.1.1-1: Void

47.1.2 RRM Requirements

The UE shall comply with the RRM requirements for CA_3A-26A specified in [3] which are listed in Table B.2.4-1 of [4].

Table 47.1.2-1: Void

47.1.3 Demodulation performance and CSI reporting Requirements

The UE shall comply with the tests applicable for CA_3A-26A among the CA demodulation performance and CSI reporting requirements specified in [2] and listed in Table B.3.2-1 of [4].

47.2 CA_3A-26A UE for dual uplink

UEs that conform to Release 11 and support CA_3A-26A shall support the following requirements in Release 12.

47.2.1 RF Requirements

The UE shall comply with the RF requirements for CA_3A-26A specified in [2]. These requirements are:

Table 47.2.1-1: RF Requirements for dual-uplink CA_3A-26A UE

Section / Clause	Description
5.6A.1	Channel bandwidths per operating band for CA
6.2.2A	UE maximum output power for CA
6.2.5A	Configured transmitted Power for CA
6.3.2A	UE Minimum output power for CA
6.3.3A	UE Transmit OFF power for CA
6.3.4A	ON/OFF time mask for CA
6.3.5A	Power control for CA
6.5.1A	Frequency error for CA
6.5.2A	Transmit modulation quality for CA
6.6.1A	Occupied bandwidth for CA
6.6.2.1A	Spectrum emission mask for CA
6.6.2.3	Adjacent Channel Leakage Ratio
6.6.3.1A	Minimum requirements for CA (SE)
6.6.3.2A	Spurious emission band UE co-existence for CA
6.7.1A	Minimum requirement for CA (Transmit intermodulation)
7.3.1A	Minimum requirements (QPSK)
7.6.2.1A	Minimum requirements for CA (Out-of-band Blocking)

47.2.2 RRM Requirements

The UE shall comply with the RRM requirements for CA_3A-26A specified in [3] which are listed in Table B.2.x-x of [4].

47.2.3 Demodulation performance and CSI reporting Requirements

The UE shall comply with the demodulation performance and CSI reporting requirements for CA_3A-26A specified in [2], which are listed in Table B.3.x-x of [4].

48 CA configuration CA_3A-28A Independent of Release

CA configuration CA_3A-28A is specified in Release 12 but is defined as a release-independent CA configuration for Rel-11 upwards.

48.1 CA_3A-28A UE

UEs that conform to Release 11 and support CA_3A-28A shall support the following requirements in Release 12.

48.1.1 RF Requirements

The UE shall comply with the RF requirements for CA_3A-28A specified in [2] which are listed in Table B.4.3-1 of [4].

Table 48.1.1-1: Void

48.1.2 RRM Requirements

The UE shall comply with the RRM requirements for CA_3A-28A specified in [3] which are listed in Table B.2.4-1 of [4].

Table 48.1.2-1: Void

48.1.3 Demodulation performance and CSI reporting Requirements

The UE shall comply with the tests applicable for CA_3A-28A among the CA demodulation performance and CSI reporting requirements specified in [2] and listed in Table B.3.2-1 of [4].

49 CA configuration CA_19A-21A Independent of Release

CA configuration CA_19A-21A with 1UL/2DLs is specified in Release 12 but is defined as a release-independent CA configuration for Rel-10 upwards.

CA configuration CA_3A-26A with 2ULs/2DLs is specified in Release 12 but is defined as a release-independent CA configuration for Rel-11 upwards.

49.1 CA_19A-21A UE for single uplink

UEs that conform to Release 11 and support CA_19A-21A shall support the following requirements in Release 12.

49.1.1 RF Requirements

The UE shall comply with the RF requirements for CA_19A-21A specified in [2] which are listed in Table B.4.3-1 of [4].

Table 49.1.1-1: Void

49.1.2 RRM Requirements

The UE shall comply with the RRM requirements for CA_19A-21A specified in [3] which are listed in Table B.2.4-1 of [4].

Table 49.1.2-1: Void

49.1.3 Demodulation performance and CSI reporting Requirements

The UE shall comply with the tests applicable for CA_19A-21A among the CA demodulation performance and CSI reporting requirements specified in [2] and listed in Table B.3.2-1 of [4].

49.2 CA_19A-21A UE for dual uplink

UEs that conform to Release 11 and support CA_19A-21A shall support the following requirements in Release 12.

49.2.1 RF Requirements

The UE shall comply with the RF requirements for CA_19A-21A specified in [2]. These requirements are:

Table 49.2.1-1: RF Requirements for dual-uplink CA_19A-21A UE

Section / Clause	Description
5.6A.1	Channel bandwidths per operating band for CA
6.2.2A	UE maximum output power for CA
6.2.5A	Configured transmitted Power for CA
6.3.2A	UE Minimum output power for CA
6.3.3A	UE Transmit OFF power for CA
6.3.4A	ON/OFF time mask for CA
6.3.5A	Power control for CA
6.5.1A	Frequency error for CA
6.5.2A	Transmit modulation quality for CA
6.6.1A	Occupied bandwidth for CA
6.6.2.1A	Spectrum emission mask for CA
6.6.2.3	Adjacent Channel Leakage Ratio
6.6.3.1A	Minimum requirements for CA (SE)
6.6.3.2A	Spurious emission band UE co-existence for CA
6.7.1A	Minimum requirement for CA (Transmit intermodulation)
7.3.1A	Minimum requirements (QPSK)
7.6.2.1A	Minimum requirements for CA (Out-of-band Blocking)

49.2.2 RRM Requirements

The UE shall comply with the RRM requirements for CA_19A-21A specified in [3] which are listed in Table B.2.x-x of [4].

49.2.3 Demodulation performance and CSI reporting Requirements

The UE shall comply with the demodulation performance and CSI reporting requirements for CA_19A-21A specified in [2], which are listed in Table B.3.x-x of [4].

50 CA configuration CA_23A-29A Independent of Release

CA configuration CA_23A-29A is specified in Release 12 but is defined as a release-independent CA configuration for Rel-11 upwards.

50.1 CA_23A-29A UE

UEs that conform to Release 11 and support CA_23A-29A shall support the following requirements in Release 12.

50.1.1 RF Requirements

The UE shall comply with the RF requirements for CA_23A-29A specified in [2] which are listed in Table B.4.4-1 of [4].

Table 50.1.1-1: Void

50.1.2 RRM Requirements

The UE shall comply with the RRM requirements for CA_23A-29A specified in [3] which are listed in Table B.2.4-1 of [4].

Table 50.1.2-1: Void

50.1.3 Demodulation performance and CSI reporting Requirements

The UE shall comply with the tests applicable for CA_23A-29A among the CA demodulation performance and CSI reporting requirements specified in [2] and listed in Table B.3.2-1 of [4].

51 CA configuration CA_4A-4A Independent of Release

CA configuration CA_4A-4A is specified in Release 12 but is defined as a release-independent CA configuration for Rel-11 upwards.

51.1 CA_4A-4A UE

UEs that conform to Release 11 and support CA_4A-4A shall support the following requirements in Release 12.

51.1.1 RF Requirements

The UE shall comply with the RF requirements for CA_4A-4A specified in [2] which are listed in Table B.4.5-1 of [4].

Table 51.1.1-1: Void

51.1.2 RRM Requirements

The UE shall comply with the RRM requirements for CA_4A-4A specified in [3] which are listed in Table B.2.3-1 of [4].

Table 51.1.2-1: Void

51.1.3 Demodulation performance and CSI reporting Requirements

The UE shall comply with the tests applicable for CA_4A-4A among the CA demodulation performance and CSI reporting requirements specified in [2] and listed in Table B.3.2-1 of [4].

52 CA configuration CA_3C Independent of Release

CA configuration CA_3C is specified in Release 12 but is defined as a release-independent CA configuration for Rel-10 upwards.

52.1 CA_3C UE

UEs that conform to Release 11 and support CA_3C shall support the following requirements in Release 12.

52.1.1 RF Requirements

The UE shall comply with the RF requirements for CA_3C specified in [2] which are listed in Table B.4.2-1 of [4].

Table 52.1.1-1: Void

52.1.2 RRM Requirements

The UE shall comply with the RRM Requirements for CA_3C specified in [3] which are listed in Table B.2.2-1 of [4].

Table 52.1.1-2: Void

52.1.3 Demodulation performance and CSI reporting Requirements

The UE shall comply with the tests applicable for CA_3C among the CA demodulation performance and CSI reporting requirements specified in [2] and listed in Table B.3.2-1 of [4].

53 CA configuration CA_1A-26A Independent of Release

CA configuration CA_1A-26A is specified in Release 12 but is defined as a release-independent CA configuration for Rel-10 upwards.

53.1 CA_1A-26A UE

UEs that conform to Release 11 and support CA_1A-26A shall support the following requirements in Release 12.

53.1.1 RF Requirements

The UE shall comply with the RF requirements for CA_1A-26A specified in [2] which are listed in Table B.4.3-1 of [4].

Table 53.1.1-1: Void

53.1.2 RRM Requirements

The UE shall comply with the RRM requirements for CA_1A-26A specified in [3] which are listed in Table B.2.4-1 of [4].

Table 53.1.2-1: Void

53.1.3 Demodulation performance and CSI reporting Requirements

The UE shall comply with the tests applicable for CA_1A-26A among the CA demodulation performance and CSI reporting requirements specified in [2] and listed in Table B.3.2-1 of [4].

54 CA configuration CA_2A-4A Independent of Release

CA configuration CA_2A-4A with 1UL/2DLs is specified in Release 12 but is defined as a release-independent CA configuration for Rel-10 upwards.

CA configuration CA_2A-4A with 2ULs/2DLs is specified in Release 12 but is defined as a release-independent CA configuration for Rel-11 upwards.

54.1 CA_2A-4A UE for single uplink

UEs that conform to Release 11 and support CA_2A-4A shall support the following requirements in Release 12.

54.1.1 RF Requirements

The UE shall comply with the RF requirements for CA_2A-4A specified in [2] which are listed in Table B.4.3-1 of [4].

Table 54.1.1-1: Void

54.1.2 RRM Requirements

The UE shall comply with the RRM requirements for CA_2A-4A specified in [3] which are listed in Table B.2.4-1 of [4].

Table 54.1.2-1: Void

54.1.3 Demodulation performance and CSI reporting Requirements

The UE shall comply with the tests applicable for CA_2A-4A among the CA demodulation performance and CSI reporting requirements specified in [2] and listed in Table B.3.2-1 of [4].

54.2 CA_2A-4A UE for dual uplink

UEs that conform to Release 11 and support CA_2A-4A shall support the following requirements in Release 12.

54.2.1 RF Requirements

The UE shall comply with the RF requirements for CA_2A-4A specified in [2]. These requirements are:

Table 54.2.1-1: RF Requirements for dual-uplink CA_2A-4A UE

Section / Clause	Description
5.6A.1	Channel bandwidths per operating band for CA
6.2.2A	UE maximum output power for CA
6.2.5A	Configured transmitted Power for CA
6.3.2A	UE Minimum output power for CA
6.3.3A	UE Transmit OFF power for CA
6.3.4A	ON/OFF time mask for CA
6.3.5A	Power control for CA
6.5.1A	Frequency error for CA
6.5.2A	Transmit modulation quality for CA
6.6.1A	Occupied bandwidth for CA
6.6.2.1A	Spectrum emission mask for CA
6.6.2.3	Adjacent Channel Leakage Ratio
6.6.3.1A	Minimum requirements for CA (SE)
6.6.3.2A	Spurious emission band UE co-existence for CA
6.7.1A	Minimum requirement for CA (Transmit intermodulation)
7.3.1A	Minimum requirements (QPSK)
7.6.2.1A	Minimum requirements for CA (Out-of-band Blocking)

54.2.2 RRM Requirements

The UE shall comply with the RRM requirements for CA_2A-4A specified in [3] which are listed in Table B.2.x-x of [4].

54.2.3 Demodulation performance and CSI reporting Requirements

The UE shall comply with the demodulation performance and CSI reporting requirements for CA_2A-4A specified in [2], which are listed in Table B.3.x-x of [4].

55 CA configuration CA_2A-5A Independent of Release

CA configuration CA_2A-5A is specified in Release 12 but is defined as a release-independent CA configuration for Rel-10 upwards.

55.1 CA_2A-5A UE

UEs that conform to Release 11 and support CA_2A-5A shall support the following requirements in Release 12.

55.1.1 RF Requirements

The UE shall comply with the RF requirements for CA_2A-5A specified in [2] which are listed in Table B.4.3-1 of [4].

Table 55.1.1-1: Void

55.1.2 RRM Requirements

The UE shall comply with the RRM requirements for CA_2A-5A specified in [3] which are listed in Table B.2.4-1 of [4].

Table 55.1.2-1: Void

55.1.3 Demodulation performance and CSI reporting Requirements

The UE shall comply with the tests applicable for CA_2A-5A among the CA demodulation performance and CSI reporting requirements specified in [2] and listed in Table B.3.2-1 of [4].

56 CA configuration CA_23B Independent of Release

CA configuration CA_23B is specified in Release 12 but is defined as a release-independent CA configuration for Rel-10 upwards.

56.1 CA_23B UE

UEs that conform to Release 11 and support CA_23B shall support the following requirements in Release 12.

56.1.1 RF Requirements

The UE shall comply with the RF requirements for CA_23B specified in [2] which are listed in Table B.4.2-1 of [4].

Table 56.1.1-1: Void

56.1.2 RRM Requirements

The UE shall comply with the RRM requirements for CA_23B specified in [3] which are listed in Table B.2.2-1 of [4].

Table 56.1.2-1: Void

56.1.3 Demodulation performance and CSI reporting Requirements

The UE shall comply with the tests applicable for CA_23B among the CA demodulation performance and CSI reporting requirements specified in [2] and listed in Table B.3.2-1 of [4].

57 CA configuration CA_27B Independent of Release

CA configuration CA_27B is specified in Release 12 but is defined as a release-independent CA configuration for Rel-10 upwards.

57.1 CA_27B UE

UEs that conform to Release 11 and support CA_27B shall support the following requirements in Release 12.

57.1.1 RF Requirements

The UE shall comply with the RF requirements for CA_27B specified in [2] which are listed in Table B.4.2-1 of [4].

Table 57.1.1-1: Void

57.1.2 RRM Requirements

The UE shall comply with the RRM Requirements for CA_27B specified in [3] which are listed in Table B.2.2-1 of [4].

Table 57.1.2-1: Void

57.1.3 Demodulation performance and CSI reporting Requirements

The UE shall comply with the tests applicable for CA_27B among the CA demodulation performance and CSI reporting requirements specified in [2] and listed in Table B.3.2-1 of [4].

58 CA configuration CA_2A-12A Independent of Release

CA configuration CA_2A-12A is specified in Release 12 but is defined as a release-independent CA configuration for Rel-11 upwards.

58.1 CA_2A-12A UE

UEs that conform to Release 11 and support CA_2A-12A shall support the following requirements in Release 12.

58.1.1 RF Requirements

The UE shall comply with the RF requirements for CA_2A-12A specified in [2] which are listed in Table B.4.3-1 of [4].

Table 58.1.1-1: Void

58.1.2 RRM Requirements

The UE shall comply with the RRM requirements for CA_2A-12A specified in [3] which are listed in Table B.2.4-1 of [4].

Table 58.1.2-1: Void

58.1.3 Demodulation performance and CSI reporting Requirements

The UE shall comply with the tests applicable for CA_2A-12A among the CA demodulation performance and CSI reporting requirements specified in [2] and listed in Table B.3.2-1 of [4].

59 CA configuration CA_5A-7A Independent of Release

CA configuration CA_5A-7A with 1UL/2DLs is specified in Release 12 but is defined as a release-independent CA configuration for Rel-10 upwards.

CA configuration CA_5A-7A with 2ULs/2DLs is specified in Release 12 but is defined as a release-independent CA configuration for Rel-11 upwards.

59.1 CA_5A-7A UE for single uplink

UEs that conform to Release 11 and support CA_5A-7A shall support the following requirements in Release 12.

59.1.1 RF Requirements

The UE shall comply with the RF requirements for CA_5A-7A specified in [2] which are listed in Table B.4.3-1 of [4].

Table 59.1.1-1: Void

59.1.2 RRM Requirements

The UE shall comply with the RRM requirements for CA_5A-7A specified in [3] which are listed in Table B.2.4-1 of [4].

Table 59.1.2-1: Void

59.1.3 Demodulation performance and CSI reporting Requirements

The UE shall comply with the tests applicable for CA_5A-7A among the CA demodulation performance and CSI reporting requirements specified in [2] and listed in Table B.3.2-1 of [4].

59.2 CA_5A-7A UE for dual uplink

UEs that conform to Release 11 and support CA_5A-7A shall support the following requirements in Release 12.

59.2.1 RF Requirements

The UE shall comply with the RF requirements for CA_5A-7A specified in [2]. These requirements are:

Table 59.2.1-1: RF Requirements for dual-uplink CA_5A-7A UE

Section / Clause	Description
5.6A.1	Channel bandwidths per operating band for CA
6.2.2A	UE maximum output power for CA
6.2.5A	Configured transmitted Power for CA
6.3.2A	UE Minimum output power for CA
6.3.3A	UE Transmit OFF power for CA
6.3.4A	ON/OFF time mask for CA
6.3.5A	Power control for CA
6.5.1A	Frequency error for CA
6.5.2A	Transmit modulation quality for CA
6.6.1A	Occupied bandwidth for CA
6.6.2.1A	Spectrum emission mask for CA
6.6.2.3	Adjacent Channel Leakage Ratio
6.6.3.1A	Minimum requirements for CA (SE)
6.6.3.2A	Spurious emission band UE co-existence for CA
6.7.1A	Minimum requirement for CA (Transmit intermodulation)
7.3.1A	Minimum requirements (QPSK)
7.6.2.1A	Minimum requirements for CA (Out-of-band Blocking)

59.2.2 RRM Requirements

The UE shall comply with the RRM requirements for CA_5A-7A specified in [3] which are listed in Table B.2.x-x of [4].

59.2.3 Demodulation performance and CSI reporting Requirements

The UE shall comply with the demodulation performance and CSI reporting requirements for CA_5A-7A specified in [2], which are listed in Table B.3.x-x of [4].

60 CA configuration CA_5A-25A Independent of Release

CA configuration CA_5A-25A is specified in Release 12 but is defined as a release-independent CA configuration for Rel-11 upwards.

60.1 CA_5A-25A UE

UEs that conform to Release 11 and support CA_5A-25A shall support the following requirements in Release 12.

60.1.1 RF Requirements

The UE shall comply with the RF requirements for CA_5A-25A specified in [2] which are listed in Table B.4.3-1 of [4].

Table 60.1.1-1: Void

60.1.2 RRM Requirements

The UE shall comply with the RRM requirements for CA_5A-25A specified in [3] which are listed in Table B.2.4-1 of [4].

Table 60.1.2-1: Void

60.1.3 Demodulation performance and CSI reporting Requirements

The UE shall comply with the tests applicable for CA_5A-25A among the CA demodulation performance and CSI reporting requirements specified in [2] and listed in Table B.3.2-1 of [4].

61 CA configuration CA_7A-28A Independent of Release

CA configuration CA_7A-28A with 1UL/2DLs is specified in Release 12 but is defined as a release-independent CA configuration for Rel-10 upwards.

CA configuration CA_7A-28A with 2ULs/2DLs is specified in Release 12 but is defined as a release-independent CA configuration for Rel-11 upwards.

61.1 CA_7A-28A UE for single uplink

UEs that conform to Release 11 and support CA_7A-28A shall support the following requirements in Release 12.

61.1.1 RF Requirements

The UE shall comply with the RF requirements for CA_7A-28A specified in [2] which are listed in Table B.4.3-1 of [4].

Table 61.1.1-1: Void

61.1.2 RRM Requirements

The UE shall comply with the RRM requirements for CA_7A-28A specified in [3] which are listed in Table B.2.4-1 of [4].

61.1.3 Demodulation performance and CSI reporting Requirements

The UE shall comply with the tests applicable for CA_7A-28A among the CA demodulation performance and CSI reporting requirements specified in [2] and listed in Table B.3.2-1 of [4].

61.2 CA_7A-28A UE for dual uplink

UEs that conform to Release 11 and support CA_7A-28A shall support the following requirements in Release 12.

61.2.1 RF Requirements

The UE shall comply with the RF requirements for CA_7A-28A specified in [2]. These requirements are:

Table 61.2.1-1: RF Requirements for dual-uplink CA_7A-28A UE

Section / Clause	Description
5.6A.1	Channel bandwidths per operating band for CA
6.2.2A	UE maximum output power for CA
6.2.5A	Configured transmitted Power for CA
6.3.2A	UE Minimum output power for CA
6.3.3A	UE Transmit OFF power for CA
6.3.4A	ON/OFF time mask for CA
6.3.5A	Power control for CA
6.5.1A	Frequency error for CA
6.5.2A	Transmit modulation quality for CA
6.6.1A	Occupied bandwidth for CA
6.6.2.1A	Spectrum emission mask for CA
6.6.2.3	Adjacent Channel Leakage Ratio
6.6.3.1A	Minimum requirements for CA (SE)
6.6.3.2A	Spurious emission band UE co-existence for CA
6.7.1A	Minimum requirement for CA (Transmit intermodulation)
7.3.1A	Minimum requirements (QPSK)
7.6.2.1A	Minimum requirements for CA (Out-of-band Blocking)

61.2.2 RRM Requirements

The UE shall comply with the RRM requirements for CA_7A-28A specified in [3] which are listed in Table B.2.x-x of [4].

61.2.3 Demodulation performance and CSI reporting Requirements

The UE shall comply with the demodulation performance and CSI reporting requirements for CA_7A-28A specified in [2], which are listed in Table B.3.x-x of [4].

62 CA configuration CA_12A-25A Independent of Release

CA configuration CA_12A-25A is specified in Release 12 but is defined as a release-independent CA configuration for Rel-11 upwards.

62.1 CA_12A-25A UE

UEs that conform to Release 11 and support CA_12A-25A shall support the following requirements in Release 12.

62.1.1 RF Requirements

The UE shall comply with the RF requirements for CA_12A-25A specified in [2] which are listed in Table B.4.3-1 of [4].

Table 62.1.1-1: Void

62.1.2 RRM Requirements

The UE shall comply with the RRM requirements for CA_12A-25A specified in [3] which are listed in Table B.2.4-1 of [4].

Table 62.1.2-1: Void

62.1.3 Demodulation performance and CSI reporting Requirements

The UE shall comply with the tests applicable for CA_12A-25A among the CA demodulation performance and CSI reporting requirements specified in [2] and listed in Table B.3.2-1 of [4].

63 CA configuration CA_3A-3A Independent of Release

CA configuration CA_3A-3A is specified in Release 12 but is defined as a release-independent CA configuration for Rel-11 upwards.

63.1 CA_3A-3A UE

UEs that conform to Release 11 and support CA_3A-3A shall support the following requirements in Release 12.

63.1.1 RF Requirements

The UE shall comply with the RF requirements for CA_3A-3A specified in [2] which are listed in Table B.4.5-1 of [4].

Table 63.1.1-1: Void

63.1.2 RRM Requirements

The UE shall comply with the RRM requirements for CA_3A-3A specified in [3] which are listed in Table B.2.3-1 of [4].

Table 63.1.2-1: Void

63.1.3 Demodulation performance and CSI reporting Requirements

The UE shall comply with the tests applicable for CA_3A-3A among the CA demodulation performance and CSI reporting requirements specified in [2] and listed in Table B.3.2-1 of [4].

64 CA configuration CA_7A-7A Independent of Release

CA configuration CA_7A-7A is specified in Release 12 but is defined as a release-independent CA configuration for Rel-11 upwards.

64.1 CA_7A-7A UE

UEs that conform to Release 11 and support CA_7A-7A shall support the following requirements in Release 12.

64.1.1 RF Requirements

The UE shall comply with the RF requirements for CA_7A-7A specified in [2] which are listed in Table B.4.5-1 of [4].

Table 64.1.1-1: Void

64.1.2 RRM Requirements

The UE shall comply with the RRM requirements for CA_7A-7A specified in [3] which are listed in Table B.2.3-1 of [4].

64.1.3 Demodulation performance and CSI reporting Requirements

The UE shall comply with the tests applicable for CA_7A-7A among the CA demodulation performance and CSI reporting requirements specified in [2] and listed in Table B.3.2-1 of [4].

65 CA configuration CA_23A-23A Independent of Release

CA configuration CA_23A-23A is specified in Release 12 but is defined as a release-independent CA configuration for Rel-11 upwards.

65.1 CA_23A-23A UE

UEs that conform to Release 11 and support CA_23A-23A shall support the following requirements in Release 12.

65.1.1 RF Requirements

The UE shall comply with the RF requirements for CA_23A-23A specified in [2] which are listed in Table B.4.5-1 of [4].

Table 65.1.1-1: Void

65.1.2 RRM Requirements

The UE shall comply with the RRM requirements for CA_23A-23A specified in [3] which are listed in Table B.2.3-1 of [4].

Table 65.1.2-1: Void

65.1.3 Demodulation performance and CSI reporting Requirements

The UE shall comply with the tests applicable for CA_23A-23A among the CA demodulation performance and CSI reporting requirements specified in [2] and listed in Table B.3.2-1 of [4].

66 CA configuration CA_3A-27A Independent of Release

CA configuration CA_3A-27A is specified in Release 12 but is defined as a release-independent CA configuration for Rel-10 upwards.

66.1 CA_3A-27A UE

UEs that conform to Release 11 and support CA_3A-27A shall support the following requirements in Release 12.

66.1.1 RF Requirements

The UE shall comply with the RF requirements for CA_3A-27A specified in [2] which are listed in Table B.4.3-1 of [4].

Table 66.1.1-1: Void

66.1.2 RRM Requirements

The UE shall comply with the RRM requirements for CA_3A-27A specified in [3] which are listed in Table B.2.4-1 of [4].

66.1.3 Demodulation performance and CSI reporting Requirements

The UE shall comply with the tests applicable for CA_3A-27A among the CA demodulation performance and CSI reporting requirements specified in [2] and listed in Table B.3.2-1 of [4].

67 CA configuration CA_39C Independent of Release

CA configuration CA_39C is specified in Release 12 but is defined as a release-independent CA configuration for Rel-10 upwards.

67.1 CA_39C UE

UEs that conform to Release 11 and support CA_39C shall support the following requirements in Release 12.

67.1.1 RF Requirements

The UE shall comply with the RF requirements for CA_39C specified in [2] which are listed in Table B.4.2-1 of [4].

Table 67.1.1-1: Void

67.1.2 RRM Requirements

The UE shall comply with the following RRM Requirements for CA_39C specified in [3] which are listed in Table B.2.2-1 of [4].

67.1.3 Demodulation performance and CSI reporting Requirements

The UE shall comply with the tests applicable for CA_39C among the CA demodulation performance and CSI reporting requirements specified in [2] and listed in Table B.3.2-1 of [4].

68 CA configuration CA_39A-41A Independent of Release

CA configuration CA_39A-41A with 1UL/2DLs is specified in Release 12 but is defined as a release-independent CA configuration for Rel-10 upwards.

CA configuration CA_39A-41A with 2ULs/2DLs is specified in Release 12 but is defined as a release-independent CA configuration for Rel-11 upwards

68.1 CA_39A-41A UE for single uplink

UEs that conform to Release 11 and support CA_39A-41A shall support the following requirements in Release 12.

68.1.1 RF Requirements

The UE shall comply with the RF requirements for CA_39A-41A specified in [2] which are listed in Table B.4.3-1 of [4].

Table 68.1.1-1: Void

68.1.2 RRM Requirements

The UE shall comply with the RRM requirements for CA_39A-41A specified in [3] which are listed in Table B.2.4-1 of [4].

68.1.3 Demodulation performance and CSI reporting Requirements

The UE shall comply with the tests applicable for CA_39A-41A among the CA demodulation performance and CSI reporting requirements specified in [2] and listed in Table B.3.2-1 of [4].

68.2 CA_39A-41A UE for dual uplink

UEs that conform to Release 11 and support CA_39A-41A shall support the following requirements in Release 12.

68.2.1 RF Requirements

The UE shall comply with the RF requirements for CA_39A-41A specified in [2]. These requirements are:

Table 68.2.1-1: RF Requirements for dual-uplink CA_39A-41A UE

Section / Clause	Description
5.6A.1	Channel bandwidths per operating band for CA
6.2.2A	UE maximum output power for CA
6.2.5A	Configured transmitted Power for CA
6.3.2A	UE Minimum output power for CA
6.3.3A	UE Transmit OFF power for CA
6.3.4A	ON/OFF time mask for CA
6.3.5A	Power control for CA
6.5.1A	Frequency error for CA
6.5.2A	Transmit modulation quality for CA
6.6.1A	Occupied bandwidth for CA
6.6.2.1A	Spectrum emission mask for CA
6.6.2.3	Adjacent Channel Leakage Ratio
6.6.3.1A	Minimum requirements for CA (SE)
6.6.3.2A	Spurious emission band UE co-existence for CA
6.7.1A	Minimum requirement for CA (Transmit intermodulation)
7.3.1A	Minimum requirements (QPSK)
7.6.2.1A	Minimum requirements for CA (Out-of-band Blocking)

68.2.2 RRM Requirements

The UE shall comply with the RRM requirements for CA_39A-41A specified in [3] which are listed in Table B.2.x-x of [4].

68.2.3 Demodulation performance and CSI reporting Requirements

The UE shall comply with the demodulation performance and CSI reporting requirements for CA_39A-41A specified in [2], which are listed in Table B.3.x-x of [4].

69 Void

70 CA configuration CA_1A-5A Independent of Release

CA configuration CA_1A-5A with 1UL/2DLs to support combination set 1 is specified in Release 12 but is defined as a release-independent CA configuration for Rel-10 upwards.

CA configuration CA_1A-5A with 2ULs/2DLs is specified in Release 12 but is defined as a release-independent CA configuration for Rel-11 upwards.

70.1 CA_1A-5A UE for single uplink

UEs that conform to Release 11 and support CA_1A-5A shall support the following requirements in Release 12.

70.1.1 RF Requirements

The UE shall comply with the RF requirements for CA_1A-5A specified in [2] which are listed in Table B.4.3-1 of [4].

Table 70.1.1-1: Void

70.1.2 RRM Requirements

The UE shall comply with the RRM requirements for CA_1A-5A specified in [3] which are listed in Table B.2.4-1 of [4].

Table 70.1.2-1: Void

70.1.3 Demodulation performance and CSI reporting Requirements

The UE shall comply with the tests applicable for CA_1A-5A among the CA demodulation performance and CSI reporting requirements specified in [2] and listed in Table B.3.2-1 of [4].

70.2 CA_1A-5A UE for dual uplink

UEs that conform to Release 11 and support CA_1A-5A shall support the following requirements in Release 12.

70.2.1 RF Requirements

The UE shall comply with the RF requirements for CA_1A-5A specified in [2]. These requirements are:

Table 70.2.1-1: RF Requirements for dual-uplink CA_1A-5A UE

Section / Clause	Description
5.6A.1	Channel bandwidths per operating band for CA
6.2.2A	UE maximum output power for CA
6.2.5A	Configured transmitted Power for CA
6.3.2A	UE Minimum output power for CA
6.3.3A	UE Transmit OFF power for CA
6.3.4A	ON/OFF time mask for CA
6.3.5A	Power control for CA
6.5.1A	Frequency error for CA
6.5.2A	Transmit modulation quality for CA
6.6.1A	Occupied bandwidth for CA
6.6.2.1A	Spectrum emission mask for CA
6.6.2.3	Adjacent Channel Leakage Ratio
6.6.3.1A	Minimum requirements for CA (SE)
6.6.3.2A	Spurious emission band UE co-existence for CA
6.7.1A	Minimum requirement for CA (Transmit intermodulation)
7.3.1A	Minimum requirements (QPSK)
7.6.2.1A	Minimum requirements for CA (Out-of-band Blocking)

70.2.2 RRM Requirements

The UE shall comply with the RRM requirements for CA_1A-5A specified in [3] which are listed in Table B.2.x-x of [4].

70.2.3 Demodulation performance and CSI reporting Requirements

The UE shall comply with the demodulation performance and CSI reporting requirements for CA_1A-5A specified in [2], which are listed in Table B.3.x-x of [4].

71 CA configuration CA_1A-11A Independent of Release

CA configuration CA_1A-11A is specified in Release 12 but is defined as a release-independent CA configuration for Rel-10 upwards.

71.1 CA_1A-11A UE

UEs that conform to Release 11 and support CA_1A-11A shall support the following requirements in Release 12.

71.1.1 RF Requirements

The UE shall comply with the RF requirements for CA_1A-11A specified in [2] which are listed in Table B.4.3-1 of [4].

Table 71.1.1-1: Void

71.1.2 RRM Requirements

The UE shall comply with the RRM requirements for CA_1A-11A specified in [3] which are listed in Table B.2.4-1 of [4].

71.1.3 Demodulation performance and CSI reporting Requirements

The UE shall comply with the tests applicable for CA_1A-11A among the CA demodulation performance and CSI reporting requirements specified in [2] and listed in Table B.3.2-1 of [4].

72 CA configuration CA_1A-20A Independent of Release

CA configuration CA_1A-20A is specified in Release 12 but is defined as a release-independent CA configuration for Rel-10 upwards.

72.1 CA_1A-20A UE

UEs that conform to Release 11 and support CA_1A-20A shall support the following requirements in Release 12.

72.1.1 RF Requirements

The UE shall comply with the RF requirements for CA_1A-20A specified in [2] which are listed in Table B.4.3-1 of [4].

Table 72.1.1-1: Void

72.1.2 RRM Requirements

The UE shall comply with the RRM requirements for CA_1A-20A specified in [3] which are listed in Table B.2.4-1 of [4].

Table 72.1.2-1: Void

72.1.3 Demodulation performance and CSI reporting Requirements

The UE shall comply with the tests applicable for CA_1A-20A among the CA demodulation performance and CSI reporting requirements specified in [2] and listed in Table B.3.2-1 of [4].

73 CA configuration CA_4A-27A Independent of Release

CA configuration CA_4A-27A is specified in Release 12 but is defined as a release-independent CA configuration for Rel-10 upwards.

73.1 CA_4A-27A UE

UEs that conform to Release 11 and support CA_4A-27A shall support the following requirements in Release 12.

73.1.1 RF Requirements

The UE shall comply with the RF requirements for CA_4A-27A specified in [2] which are listed in Table B.4.3-1 of [4].

Table 73.1.1-1: Void

73.1.2 RRM Requirements

The UE shall comply with the RRM requirements for CA_4A-27A specified in [3] which are listed in Table B.2.4-1 of [4].

73.1.3 Demodulation performance and CSI reporting Requirements

The UE shall comply with the tests applicable for CA_4A-27A among the CA demodulation performance and CSI reporting requirements specified in [2] and listed in Table B.3.2-1 of [4].

74 CA configuration CA_20A-32A Independent of Release

CA configuration CA_20A-32A is specified in Release 12 but is defined as a release-independent CA configuration for Rel-11 upwards.

74.1 CA_23A-29A UE

UEs that conform to Release 11 and support CA_20A-32A shall support the following requirements in Release 12.

74.1.1 RF Requirements

The UE shall comply with the RF requirements for CA_20A-32A specified in [2] which are listed in Table B.4.3-1 of [4].

Table 74.1.1-1: Void

74.1.2 RRM Requirements

The UE shall comply with the RRM requirements for CA_20A-32A specified in [3] which are listed in Table B.2.4-1 of [4].

74.1.3 Demodulation performance and CSI reporting Requirements

The UE shall comply with the tests applicable for CA_20A-32A among the CA demodulation performance and CSI reporting requirements specified in [2] and listed in Table B.3.2-1 of [4].

75 CA configuration CA_41D Independent of Release

CA configuration CA_41D is specified in Release 12 but is defined as a release-independent CA configuration for Rel-11 upwards for UE Categories specified in [7].

75.1 CA_41D UE

UEs that conform to Release 11 and support CA_41D shall support the following requirements in Release 12.

75.1.1 RF Requirements

The UE shall comply with the RF requirements for CA_41D specified in [2] which are listed in Table B.4.2-1 of [4].

Table 75.1.1-1: Void

75.1.2 RRM Requirements

The UE shall comply with the RRM requirements for CA_41D specified in [3] which are listed in Table B.2.2-1 of [4].

75.1.3 Demodulation performance and CSI reporting Requirements

The UE shall comply with the tests applicable for CA_41D among the CA demodulation performance and CSI reporting requirements specified in [2] and listed in Table B.3.2-1 of [4].

76 CA configuration CA_42C Independent of Release

77 CA configuration CA_42A-42A Independent of Release

CA configuration CA_42A-42A is specified in Release 12 but is defined as a release-independent CA configuration for Rel-11 upwards.

77.1 CA_42A-42A UE

UEs that conform to Release 11 and support CA_42A-42A shall support the following requirements in Release 12.

77.1.1 RF Requirements

The UE shall comply with the RF requirements for CA_42A-42A specified in [2] which are listed in Table B.4.5-1 of [4].

Table 75.1.1-1: Void

77.1.2 RRM Requirements

The UE shall comply with the RRM requirements for CA_42A-42A specified in [3] which are listed in Table B.2.3-1 of [4].

77.1.3 Demodulation performance and CSI reporting Requirements

The UE shall comply with the tests applicable for CA_42A-42A among the CA demodulation performance and CSI reporting requirements specified in [2] and listed in Table B.3.2-1 of [4].

78 CA configuration CA_2A-2A Independent of Release

CA configuration CA_2A-2A is specified in Release 12 but is defined as a release-independent CA configuration for Rel-11 upwards.

78.1 CA_2A-2A UE

UEs that conform to Release 11 and support CA_2A-2A shall support the following requirements in Release 12.

78.1.1 RF Requirements

The UE shall comply with the RF requirements for CA_2A-2A specified in [2] which are listed in Table B.4.5-1 of [4].

Table 78.1.1-1: Void

78.1.2 RRM Requirements

The UE shall comply with the following RRM requirements for CA_2A-2A specified in Annex B.2.3.

78.1.3 Demodulation performance and CSI reporting Requirements

The UE shall comply with the tests applicable for CA_2A-2A among the CA demodulation performance and CSI reporting requirements specified in [2] and listed in Table B.3.2-1 of [4].

79 CA configuration CA_40C Independent of Release

CA_40C is specified in Release 10, Release 11 and Release 12. It is defined as a release-independent CA configuration for Rel-10 upwards.

79.1 CA_40C UE

UEs that conform to Release 11 and support CA_40C shall support the following requirements in Release 12 for both one uplink and simultaneous transmission on two uplinks.

79.1.1 RF Requirements

The UE shall comply with the following RF requirements for CA_40C specified in [2] which are listed in Table B.4.2-1 of [4].

Table 79.1.1-1: Void

79.1.2 RRM Requirements

The UE shall comply with the RRM Requirements for CA_40C specified in [3] which are listed in Table B.2.2-1 of [4].

79.1.3 Demodulation performance and CSI reporting Requirements

The UE shall comply with the demodulation performance and CSI reporting requirements for CA_40C specified in [2], which are listed in section B.3.2-1 of [4].

80 CA configuration CA_8A-11A Independent of Release

CA configuration CA_8A-11A is specified in Release 12 but is defined as a release-independent CA configuration for Rel-10 upwards.

80.1 CA_8A-11A UE

UEs that conform to Release 11 and support CA_8A-11A shall support the following requirements in Release 12.

80.1.1 RF Requirements

The UE shall comply with the RF requirements for CA_8A-11A specified in [2] which are listed in Table B.4.3-1 of [4].

Table 80.1.1-1: Void

80.1.2 RRM Requirements

The UE shall comply with the RRM requirements for CA_8A-11A specified in [3] which are listed in Table B.2.4-1 of [4].

80.1.3 Demodulation performance and CSI reporting Requirements

The UE shall comply with the demodulation performance and CSI reporting requirements for CA_8A-11A specified in [2], which are listed in Table B.3.3-1 of [4].

81 CA configuration CA_41A-42A Independent of Release

CA configuration CA_41A-42A is specified in Release 12 but is defined as a release-independent CA configuration for Rel-10 upwards.

81.1 CA_41A-42A UE

UEs that conform to Release 11 and support CA_41A-42A shall support the following requirements in Release 12.

81.1.1 RF Requirements

The UE shall comply with the RF requirements for CA_41A-42A specified in [2] which are listed in Table B.4.3-1 of [4].

Table 81.1.1-1: Void

81.1.2 RRM Requirements

The UE shall comply with the RRM requirements for CA_41A-42A specified in [3] which are listed in Table B.2.4-1 of [4].

81.1.3 Demodulation performance and CSI reporting Requirements

The UE shall comply with the demodulation performance and CSI reporting requirements for CA_41A-42A specified in [2], which are listed in Table B.3.3-1 of [4].

82 CA configuration CA_18A-28A Independent of Release

CA configuration CA_18A-28A is specified in Release 12 but is defined as a release-independent CA configuration for Rel-10 upwards.

82.1 CA_18A-28A UE

UEs that conform to Release 11 and support CA_18A-28A shall support the following requirements in Release 12.

82.1.1 RF Requirements

The UE shall comply with the RF requirements for CA_18A-28A specified in [2] which are listed in Table B.4.3-1 of [4].

Table 82.1.1-1: Void

82.1.2 RRM Requirements

The UE shall comply with the RRM requirements for CA_18A-28A specified in [3] which are listed in Table B.2.4-1 of [4].

82.1.3 Demodulation performance and CSI reporting Requirements

The UE shall comply with the demodulation performance and CSI reporting requirements for CA_18A-28A specified in [2], which are listed in Table B.3.3-1 of [4].

83 CA configuration CA_1A-5A-7A Independent of Release

CA configuration CA_1A-5A-7A is specified in Release 12 but is defined as a release-independent CA configuration for Rel-11 upwards for UE Categories specified in [7].

83.1 CA_1A-5A-7A UE

UEs that conform to Release 11 and support CA_1A-5A-7A shall support the following requirements in Release 12.

83.1.1 RF Requirements

The UE shall comply with the RF requirements for CA_1A-5A-7A specified in [2] which are listed in Table B.4.3-1 of [4].

Table 83.1.1-1: Void

83.1.2 RRM Requirements

The UE shall comply with the RRM requirements for CA_1A-5A-7A specified in [3].

83.1.3 Demodulation performance and CSI reporting Requirements

The UE shall comply with the demodulation performance and CSI reporting requirements for CA_1A-5A-7A specified in [2].

84 CA configuration CA_1A-3A-5A Independent of Release

CA configuration CA_1A-3A-5A is specified in Release 12 but is defined as a release-independent CA configuration for Rel-11 upwards for UE Categories specified in [7].

84.1 CA_1A-3A-5A UE

UEs that conform to Release 11 and support CA_1A-3A-5A shall support the following requirements in Release 12.

84.1.1 RF Requirements

The UE shall comply with the RF requirements for CA_1A-3A-5A specified in [2] which are listed in Table B.4.3-1 of [4].

Table 84.1.1-1: Void

84.1.2 RRM Requirements

The UE shall comply with the RRM requirements for CA_1A-3A-5A specified in [3].

84.1.3 Demodulation performance and CSI reporting Requirements

The UE shall comply with the demodulation performance and CSI reporting requirements for CA_1A-3A-5A specified in [2].

85 CA configuration CA_1A-3A-8A Independent of Release

CA configuration CA_1A-3A-8A is specified in Release 12 but is defined as a release-independent CA configuration for Rel-11 upwards for UE Categories specified in [7].

85.1 CA_1A-3A-8A UE

UEs that conform to Release 11 and support CA_1A-3A-8A shall support the following requirements in Release 12.

85.1.1 RF Requirements

The UE shall comply with the RF requirements for CA_1A-3A-8A specified in [2] which are listed in Table B.4.3-1 of [4].

Table 85.1.1-1: Void

85.1.2 RRM Requirements

The UE shall comply with the RRM requirements for CA_1A-3A-8A specified in [3].

85.1.3 Demodulation performance and CSI reporting Requirements

The UE shall comply with the demodulation performance and CSI reporting requirements foCA_1A-3A-8A specified in [2].

86 CA configuration CA_1A-3A-19A Independent of Release

CA configuration CA_1A-3A-19A is specified in Release 12 but is defined as a release-independent CA configuration for Rel-10 upwards.

86.1 CA_1A-3A-19A UE

UEs that conform to Release 11 and support CA_1A-3A-19A shall support the following requirements in Release 12.

86.1.1 RF Requirements

The UE shall comply with the RF requirements for CA_1A-3A-19A specified in [2] which are listed in Table B.4.3-1 of [4].

Table 86.1.1-1: Void

86.1.2 RRM Requirements

The UE shall comply with the RRM requirements for CA_1A-3A-19A specified in [3] which are listed in Table B.2.4-1 of [4].

86.1.3 Demodulation performance and CSI reporting Requirements

The UE shall comply with the demodulation performance and CSI reporting requirements for CA_1A-3A-19A specified in [2], which are listed in Table B.3.3-1 of [4].

87 CA configuration CA_1A-3A-20A Independent of Release

CA configuration CA_1A-3A-20A is specified in Release 12 but is defined as a release-independent CA configuration for Rel-10 upwards.

87.1 CA_1A-3A-20A UE

UEs that conform to Release 11 and support CA_1A-3A-20A shall support the following requirements in Release 12.

87.1.1 RF Requirements

The UE shall comply with the RF requirements for CA_1A-3A-20A specified in [2] which are listed in Table B.4.3-1 of [4].

Table 87.1.1-1: Void

87.1.2 RRM Requirements

The UE shall comply with the RRM requirements for CA_1A-3A-20A specified in [3] which are listed in Table B.2.4-1 of [4].

87.1.3 Demodulation performance and CSI reporting Requirements

The UE shall comply with the demodulation performance and CSI reporting requirements for CA_1A-3A-20A specified in [2], which are listed in Table B.3.3-1 of [4].

88 CA configuration CA_1A-3A Independent of Release

CA configuration CA_1A-3A with 1UL/2DLs is specified in Release 12 but is defined as a release-independent CA configuration for Rel-10 upwards.

CA configuration CA_1A-3A with 2ULs/2DLs is specified in Release 12 but is defined as a release-independent CA configuration for Rel-11 upwards.

88.1 CA_1A-3A UE for single uplink

UEs that conform to Release 11 and support CA_1A-3A shall support the following requirements in Release 12.

88.1.1 RF Requirements

The UE shall comply with the RF requirements for CA_1A-3A specified in [2] which are listed in Table B.4.3-1 of [4].

Table 88.1.1-1: Void

88.1.2 RRM Requirements

The UE shall comply with the RRM requirements for CA_1A-3A specified in [3] which are listed in Table B.2.4-1 of [4].

88.1.3 Demodulation performance and CSI reporting Requirements

The UE shall comply with the demodulation performance and CSI reporting requirements for CA_1A-3A specified in [2], which are listed in Table B.3.3-1 of [4].

88.2 CA_1A-3A UE for dual uplink

UEs that conform to Release 11 and support CA_1A-3A shall support the following requirements in Release 12.

88.2.1 RF Requirements

The UE shall comply with the RF requirements for CA_1A-3A specified in [2]. These requirements are:

Table 88.2.1-1: RF Requirements for dual-uplink CA_1A-3A UE

Section / Clause	Description
5.6A.1	Channel bandwidths per operating band for CA
6.2.2A	UE maximum output power for CA
6.2.5A	Configured transmitted Power for CA
6.3.2A	UE Minimum output power for CA
6.3.3A	UE Transmit OFF power for CA
6.3.4A	ON/OFF time mask for CA
6.3.5A	Power control for CA
6.5.1A	Frequency error for CA
6.5.2A	Transmit modulation quality for CA
6.6.1A	Occupied bandwidth for CA
6.6.2.1A	Spectrum emission mask for CA
6.6.2.3	Adjacent Channel Leakage Ratio
6.6.3.1A	Minimum requirements for CA (SE)
6.6.3.2A	Spurious emission band UE co-existence for CA
6.7.1A	Minimum requirement for CA (Transmit intermodulation)
7.3.1A	Minimum requirements (QPSK)
7.6.2.1A	Minimum requirements for CA (Out-of-band Blocking)

88.2.2 RRM Requirements

The UE shall comply with the RRM requirements for CA_1A-3A specified in [3] which are listed in Table B.2.x-x of [4].

88.2.3 Demodulation performance and CSI reporting Requirements

The UE shall comply with the demodulation performance and CSI reporting requirements for CA_1A-3A specified in [2], which are listed in Table B.3.x-x of [4].

89 CA configuration CA_1A-7A-20A Independent of Release

CA configuration CA_1A-7A-20A is specified in Release 12 but is defined as a release-independent CA configuration for Rel-10 upwards.

89.1 CA_1A-7A-20A UE

UEs that conform to Release 11 and support CA_1A-7A-20A shall support the following requirements in Release 12.

89.1.1 RF Requirements

The UE shall comply with the RF requirements for CA_1A-7A-20A specified in [2] which are listed in Table B.4.3-1 of [4].

Table 89.1.1-1: Void

89.1.2 RRM Requirements

The UE shall comply with the RRM requirements for CA_1A-7A-20A specified in [3] which are listed in Table B.2.4-1 of [4].

89.1.3 Demodulation performance and CSI reporting Requirements

The UE shall comply with the demodulation performance and CSI reporting requirements for CA_1A-7A-20A specified in [2], which are listed in Table B.3.3-1 of [4].

90 CA configuration CA_1A-7A Independent of Release

CA configuration CA_1A-7A with 1UL/2DLs is specified in Release 12 but is defined as a release-independent CA configuration for Rel-10 upwards for UE Categories specified in [7].

CA configuration CA_1A-7A with 2ULs/2DLs is specified in Release 12 but is defined as a release-independent CA configuration for Rel-11 upwards.

90.1 CA_1A-7A UE for single uplink

UEs that conform to Release 11 and support CA_1A-7A shall support the following requirements in Release 12.

90.1.1 RF Requirements

The UE shall comply with the RF requirements for CA_1A-7A specified in [2] which are listed in Table B.4.3-1 of [4].

Table 90.1.1-1: Void

90.1.2 RRM Requirements

The UE shall comply with the RRM requirements for CA_1A-7A specified in [3] which are listed in Table B.2.4-1 of [4].

90.1.3 Demodulation performance and CSI reporting Requirements

The UE shall comply with the demodulation performance and CSI reporting requirements for CA_1A-7A specified in [2], which are listed in Table B.3.2-1 of [4].

90.2 CA_1A-7A UE for dual uplink

UEs that conform to Release 11 and support CA_1A-7A shall support the following requirements in Release 12.

90.2.1 RF Requirements

The UE shall comply with the RF requirements for CA_1A-7A specified in [2]. These requirements are:

Table 90.2.1-1: RF Requirements for dual-uplink CA_1A-7A UE

Section / Clause	Description
5.6A.1	Channel bandwidths per operating band for CA
6.2.2A	UE maximum output power for CA
6.2.5A	Configured transmitted Power for CA
6.3.2A	UE Minimum output power for CA
6.3.3A	UE Transmit OFF power for CA
6.3.4A	ON/OFF time mask for CA
6.3.5A	Power control for CA
6.5.1A	Frequency error for CA
6.5.2A	Transmit modulation quality for CA
6.6.1A	Occupied bandwidth for CA
6.6.2.1A	Spectrum emission mask for CA
6.6.2.3	Adjacent Channel Leakage Ratio
6.6.3.1A	Minimum requirements for CA (SE)
6.6.3.2A	Spurious emission band UE co-existence for CA
6.7.1A	Minimum requirement for CA (Transmit intermodulation)
7.3.1A	Minimum requirements (QPSK)
7.6.2.1A	Minimum requirements for CA (Out-of-band Blocking)

90.2.2 RRM Requirements

The UE shall comply with the RRM requirements for CA_1A-7A specified in [3] which are listed in Table B.2.x-x of [4].

90.2.3 Demodulation performance and CSI reporting Requirements

The UE shall comply with the demodulation performance and CSI reporting requirements for CA_1A-7A specified in [2], which are listed in Table B.3.x-x of [4].

91 CA configuration CA_1A-19A-21A Independent of Release

CA configuration CA_1A-19A-21A is specified in Release 12 but is defined as a release-independent CA configuration for Rel-11 upwards for UE Categories specified in [7].

91.1 CA_1A-19A-21A UE

UEs that conform to Release 11 and support CA_1A-19A-21A shall support the following requirements in Release 12.

91.1.1 RF Requirements

The UE shall comply with the RF requirements for CA_1A-19A-21A specified in [2] which are listed in Table B.4.3-1 of [4].

Table 91.1.1-1: Void

91.1.2 RRM Requirements

The UE shall comply with the RRM requirements for CA_1A-19A-21A specified in [3].

91.1.3 Demodulation performance and CSI reporting Requirements

The UE shall comply with the demodulation performance and CSI reporting requirements foCA_1A-19A-21A specified in [2].

92 CA configuration CA_2A-2A-13A Independent of Release

CA configuration CA_2A-2A-13A is specified in Release 12 but is defined as a release-independent CA configuration for Rel-11 upwards for UE Categories specified in [7].

92.1 CA_2A-2A-13A UE

UEs that conform to Release 11 and support CA_2A-2A-13A shall support the following requirements in Release 12.

92.1.1 RF Requirements

The UE shall comply with the RF requirements for CA_2A-2A-13A specified in [2] which are listed in Table B.4.3-1 of [4].

Table 92.1.1-1: Void

92.1.2 RRM Requirements

The UE shall comply with the RRM requirements for CA_2A-2A-13A specified in [3].

92.1.3 Demodulation performance and CSI reporting Requirements

The UE shall comply with the demodulation performance and CSI reporting requirements for CA_2A-2A-13A specified in [2].

93 CA configuration CA_2A-4A-5A Independent of Release

CA configuration CA_2A-4A-5A is specified in Release 12 but is defined as a release-independent CA configuration for Rel-11 upwards for UE Categories specified in [7].

93.1 CA_2A-4A-5A UE

UEs that conform to Release 11 and support CA_2A-4A-5A shall support the following requirements in Release 12.

93.1.1 RF Requirements

The UE shall comply with the RF requirements for CA_2A-4A-5A specified in [2] which are listed in Table B.4.3-1 of [4].

Table 93.1.1-1: Void

93.1.2 RRM Requirements

The UE shall comply with the RRM requirements for CA_2A-4A-5A specified in [3].

93.1.3 Demodulation performance and CSI reporting Requirements

The UE shall comply with the demodulation performance and CSI reporting requirements for CA_2A-4A-5A specified in [2].

94 CA configuration CA_2A-4A-13A Independent of Release

CA configuration CA_2A-4A-13A is specified in Release 12 but is defined as a release-independent CA configuration for Rel-11 upwards for UE Categories specified in [7].

94.1 CA_2A-4A-13A UE

UEs that conform to Release 11 and support CA_2A-4A-13A shall support the following requirements in Release 12.

94.1.1 RF Requirements

The UE shall comply with the RF requirements for CA_2A-4A-13A specified in [2] which are listed in Table B.4.3-1 of [4].

Table 94.1.1-1: Void

94.1.2 RRM Requirements

The UE shall comply with the RRM requirements for CA_2A-4A-13A specified in [3].

94.1.3 Demodulation performance and CSI reporting Requirements

The UE shall comply with the demodulation performance and CSI reporting requirements for CA_2A-4A-13A specified in [2].

95 CA configuration CA_2A-4A-12A Independent of Release

CA configuration CA_2A-4A-12A is specified in Release 12 but is defined as a release-independent CA configuration for Rel-11 upwards for UE Categories specified in [7].

95.1 CA_2A-4A-12A UE

UEs that conform to Release 11 and support CA_2A-4A-12A shall support the following requirements in Release 12.

95.1.1 RF Requirements

The UE shall comply with the RF requirements for CA_2A-4A-12A specified in [2] which are listed in Table B.4.3-1 of [4].

Table 95.1.1-1: Void

95.1.2 RRM Requirements

The UE shall comply with the RRM requirements for CA_2A-4A-12A specified in [3].

95.1.3 Demodulation performance and CSI reporting Requirements

The UE shall comply with the demodulation performance and CSI reporting requirements foCA_2A-4A-12A specified in [2].

96 CA configuration CA_2A-12B Independent of Release

CA configuration CA_2A-12B is specified in Release 12 but is defined as a release-independent CA configuration for Rel-11 upwards for UE Categories specified in [7].

96.1 CA_2A-12B UE

UEs that conform to Release 11 and support CA_2A-12B shall support the following requirements in Release 12.

96.1.1 RF Requirements

The UE shall comply with the RF requirements for CA_2A-12B specified in [2] which are listed in Table B.4.3-1 of [4].

Table 96.1.1-1: Void

96.1.2 RRM Requirements

The UE shall comply with the RRM requirements for CA_2A-12B specified in [3].

96.1.3 Demodulation performance and CSI reporting Requirements

The UE shall comply with the demodulation performance and CSI reporting requirements for CA_2A-12B specified in [2].

97 CA configuration CA_3A-7C Independent of Release

CA configuration CA_3A-7C is specified in Release 12 but is defined as a release-independent CA configuration for Rel-11 upwards for UE Categories specified in [7].

97.1 CA_3A-7C UE

UEs that conform to Release 11 and support CA_3A-7C shall support the following requirements in Release 12.

97.1.1 RF Requirements

The UE shall comply with the RF requirements for CA_3A-7C specified in [2] which are listed in Table B.4.3-1 of [4].

Table 97.1.1-1: Void

97.1.2 RRM Requirements

The UE shall comply with the RRM requirements for CA_3A-7C specified in [3].

97.1.3 Demodulation performance and CSI reporting Requirements

The UE shall comply with the demodulation performance and CSI reporting requirements foCA_3A-7C specified in [2].

98 CA configuration CA_3A-7A-20A Independent of Release

CA configuration CA_3A-7A-20A is specified in Release 12 but is defined as a release-independent CA configuration for Rel-11 upwards for UE Categories specified in [7].

98.1 CA_3A-7A-20A UE

UEs that conform to Release 11 and support CA_3A-7A-20A shall support the following requirements in Release 12.

98.1.1 RF Requirements

The UE shall comply with the RF requirements for CA_3A-7A-20A specified in [2] which are listed in Table B.4.3-1 of [4].

Table 98.1.1-1: Void

98.1.2 RRM Requirements

The UE shall comply with the RRM requirements for CA_3A-7A-20A specified in [3].

98.1.3 Demodulation performance and CSI reporting Requirements

The UE shall comply with the demodulation performance and CSI reporting requirements for CA_3A-7A-20A specified in [2].

99 CA configuration CA_4A-4A-13A Independent of Release

CA configuration CA_4A-4A-13A is specified in Release 12 but is defined as a release-independent CA configuration for Rel-11 upwards for UE Categories specified in [7].

99.1 CA_4A-4A-13A UE

UEs that conform to Release 11 and support CA_4A-4A-13A shall support the following requirements in Release 12.

99.1.1 RF Requirements

The UE shall comply with the RF requirements for CA_4A-4A-13A specified in [2] which are listed in Table B.4.3-1 of [4].

Table 99.1.1-1: Void

99.1.2 RRM Requirements

The UE shall comply with the RRM requirements for CA_4A-4A-13A specified in [3].

99.1.3 Demodulation performance and CSI reporting Requirements

The UE shall comply with the demodulation performance and CSI reporting requirements for CA_4A-4A-13A specified in [2].

100 CA configuration CA_4A-12B Independent of Release

CA configuration CA_4A-12B is specified in Release 12 but is defined as a release-independent CA configuration for Rel-11 upwards for UE Categories specified in [7].

100.1 CA_4A-12B UE

UEs that conform to Release 11 and support CA_4A-12B shall support the following requirements in Release 12.

100.1.1 RF Requirements

The UE shall comply with the RF requirements for CA_4A-12B specified in [2] which are listed in Table B.4.3-1 of [4].

Table 100.1.1-1: Void

100.1.2 RRM Requirements

The UE shall comply with the RRM requirements for CA_4A-12B specified in [3].

100.1.3 Demodulation performance and CSI reporting Requirements

The UE shall comply with the demodulation performance and CSI reporting requirements for CA_4A-12B specified in [2].

101 CA configuration CA_12B Independent of Release

CA configuration CA_12B is specified in Release 12 but is defined as a release-independent CA configuration for Rel-10 upwards.

101.1 CA_12B UE

UEs that conform to Release 11 and support CA_12B shall support the following requirements in Release 12.

101.1.1 RF Requirements

The UE shall comply with the RF requirements for CA_12B specified in [2] which are listed in Table B.4.2-1 of [4].

Table 101.1.1-1: Void

101.1.2 RRM Requirements

The UE shall comply with the RRM Requirements for CA_12B specified in [3] which are listed in Table B.2.2-1 of [4].

101.1.3 Demodulation performance and CSI reporting Requirements

The UE shall comply with the demodulation performance and CSI reporting requirements for CA_12B specified in [2], which are listed in Table B.3.2-1 of [4].

102 CA configuration CA_2A-4A-4A Independent of Release

CA configuration CA_2A-4A-4A is specified in Release 12 but is defined as a release-independent CA configuration for Rel-11 upwards for UE Categories specified in [7].

102.1 CA_2A-4A-4A UE

UEs that conform to Release 11 and support CA_2A-4A-4A shall support the following requirements in Release 12.

102.1.1 RF Requirements

The UE shall comply with the RF requirements for CA_2A-4A-4A specified in [2] which are listed in Table B.4.3-1 of [4].

Table 102.1.1-1: Void

102.1.2 RRM Requirements

The UE shall comply with the RRM requirements for CA_2A-4A-4A specified in [3].

102.1.3 Demodulation performance and CSI reporting Requirements

The UE shall comply with the demodulation performance and CSI reporting requirements for CA_2A-4A-4A specified in [2].

103 CA configuration CA_4A-4A-12A Independent of Release

CA configuration CA_4A-4A-12A is specified in Release 12 but is defined as a release-independent CA configuration for Rel-11 upwards for UE Categories specified in [7].

103.1 CA_4A-4A-12A UE

UEs that conform to Release 11 and support CA_4A-4A-12A shall support the following requirements in Release 12.

103.1.1 RF Requirements

The UE shall comply with the RF requirements for CA_4A-4A-12A specified in [2] which are listed in Table B.4.3-1 of [4].

Table 103.1.1-1: Void

103.1.2 RRM Requirements

The UE shall comply with the RRM requirements for CA_4A-4A-12A specified in [3].

103.1.3 Demodulation performance and CSI reporting Requirements

The UE shall comply with the demodulation performance and CSI reporting requirements for CA_4A-4A-12A specified in [2].

104 CA configuration CA_3C-7A Independent of Release

CA configuration CA_3C-7A is specified in Release 12 but is defined as a release-independent CA configuration for Rel-11 upwards for UE Categories specified in [7].

104.1 CA_3C-7A UE

UEs that conform to Release 11 and support CA_3C-7A shall support the following requirements in Release 12.

104.1.1 RF Requirements

The UE shall comply with the RF requirements for CA_3C-7A specified in [2] which are listed in Table B.4.3-1 of [4].

Table 104.1.1-1: Void

104.1.2 RRM Requirements

The UE shall comply with the RRM requirements for CA_3C-7A specified in [3].

104.1.3 Demodulation performance and CSI reporting Requirements

The UE shall comply with the demodulation performance and CSI reporting requirements for CA_3C-7A specified in [2].

105 CA configuration CA_2A-5A-12A Independent of Release

CA configuration CA_2A-5A-12A is specified in Release 12 but is defined as a release-independent CA configuration for Rel-11 upwards for UE Categories specified in [7].

105.1 CA_2A-5A-12A UE

UEs that conform to Release 11 and support CA_4A-4A-12A shall support the following requirements in Release 12.

105.1.1 RF Requirements

The UE shall comply with the RF requirements for CA_2A-5A-12A specified in [2] which are listed in Table B.4.3-1 of [4].

Table 105.1.1-1: Void

105.1.2 RRM Requirements

The UE shall comply with the RRM requirements for CA_2A-5A-12A specified in [3].

105.1.3 Demodulation performance and CSI reporting Requirements

The UE shall comply with the demodulation performance and CSI reporting requirements for CA_2A-5A-12A specified in [2].

106 CA configuration CA_4A-5A-12A Independent of Release

CA configuration CA_4A-5A-12A is specified in Release 12 but is defined as a release-independent CA configuration for Rel-11 upwards for UE Categories specified in [7].

106.1 CA_4A-5A-12A UE

UEs that conform to Release 11 and support CA_2A-4A-12A shall support the following requirements in Release 12.

106.1.1 RF Requirements

The UE shall comply with the RF requirements for CA_4A-5A-12A specified in [2] which are listed in Table B.4.3-1 of [4].

Table 106.1.1-1: Void

106.1.2 RRM Requirements

The UE shall comply with the RRM requirements for CA_4A-5A-12A specified in [3].

106.1.3 Demodulation performance and CSI reporting Requirements

The UE shall comply with the demodulation performance and CSI reporting requirements for CA_4A-5A-12A specified in [2].

107 CA configuration CA_2A-5A-30A Independent of Release

CA configuration CA_2A-5A-30A is specified in Release 12 but is defined as a release-independent CA configuration for Rel-11 upwards for UE Categories specified in [7].

107.1 CA_2A-5A-30A UE

UEs that conform to Release 11 and support CA_2A-5A-30A shall support the following requirements in Release 12.

107.1.1 RF Requirements

The UE shall comply with the RF requirements for CA_2A-5A-30A specified in [2] which are listed in Table B.4.3-1 of [4].

Table 107.1.1-1: Void

107.1.2 RRM Requirements

The UE shall comply with the RRM requirements for CA_2A-5A-30A specified in [3].

107.1.3 Demodulation performance and CSI reporting Requirements

The UE shall comply with the tests applicable for CA_2A-5A-30A among the CA demodulation performance and CSI reporting requirements specified in [2].

108 CA configuration CA_2A-12A-30A Independent of Release

CA configuration CA_2A-12A-30A is specified in Release 12 but is defined as a release-independent CA configuration for Rel-11 upwards for UE Categories specified in [7].

108.1 CA_2A-12A-30A UE

UEs that conform to Release 11 and support CA_2A-12A-30A shall support the following requirements in Release 12.

108.1.1 RF Requirements

The UE shall comply with the RF requirements for CA_2A-12A-30A specified in [2] which are listed in Table B.4.3-1 of [4].

Table 108.1.1-1: Void

108.1.2 RRM Requirements

The UE shall comply with the RRM requirements for CA_2A-12A-30A specified in [3].

108.1.3 Demodulation performance and CSI reporting Requirements

The UE shall comply with the tests applicable for CA_2A-12A-30A among the CA demodulation performance and CSI reporting requirements specified in [2].

109 CA configuration CA_2A-29A-30A Independent of Release

CA configuration CA_2A-29A-30A is specified in Release 12 but is defined as a release-independent CA configuration for Rel-11 upwards for UE Categories specified in [7].

109.1 CA_2A-29A-30A UE

UEs that conform to Release 11 and support CA_2A-29A-30A shall support the following requirements in Release 12.

109.1.1 RF Requirements

The UE shall comply with the RF requirements for CA_2A-29A-30A specified in [2] which are listed in Table B.4.4-1 of [4].

Table 109.1.1-1: Void

109.1.2 RRM Requirements

The UE shall comply with the RRM requirements for CA_2A-29A-30A specified in [3].

109.1.3 Demodulation performance and CSI reporting Requirements

The UE shall comply with the tests applicable for CA_2A-29A-30A among the CA demodulation performance and CSI reporting requirements specified in [2].

110 CA configuration CA_4A-5A-30A Independent of Release

CA configuration CA_4A-5A-30A is specified in Release 12 but is defined as a release-independent CA configuration for Rel-11 upwards for UE Categories specified in [7].

110.1 CA_4A-5A-30A UE

UEs that conform to Release 11 and support CA_4A-5A-30A shall support the following requirements in Release 12.

110.1.1 RF Requirements

The UE shall comply with the RF requirements for CA_4A-5A-30A specified in [2] which are listed in Table B.4.3-1 of [4].

Table 110.1.1-1: Void

110.1.2 RRM Requirements

The UE shall comply with the RRM requirements for CA_4A-5A-30A specified in [3].

110.1.3 Demodulation performance and CSI reporting Requirements

The UE shall comply with the tests applicable for CA_4A-5A-30A among the CA demodulation performance and CSI reporting requirements specified in [2].

111 CA configuration CA_4A-12A-30A Independent of Release

CA configuration CA_4A-12A-30A is specified in Release 12 but is defined as a release-independent CA configuration for Rel-11 upwards for UE Categories specified in [7].

111.1 CA_4A-12A-30A UE

UEs that conform to Release 11 and support CA_4A-12A-30A shall support the following requirements in Release 12.

111.1.1 RF Requirements

The UE shall comply with the RF requirements for CA_4A-12A-30A specified in [2] which are listed in Table B.4.3-1 of [4].

Table 111.1.1-1: Void

111.1.2 RRM Requirements

The UE shall comply with the RRM requirements for CA_4A-12A-30A specified in [3].

111.1.3 Demodulation performance and CSI reporting Requirements

The UE shall comply with the tests applicable for CA_4A-12A-30A among the CA demodulation performance and CSI reporting requirements specified in [2].

112 CA configuration CA_4A-29A-30A Independent of Release

CA configuration CA_4A-29A-30A is specified in Release 12 but is defined as a release-independent CA configuration for Rel-11 upwards for UE Categories specified in [7].

112.1 CA_4A-29A-30A UE

UEs that conform to Release 11 and support CA_4A-29A-30A shall support the following requirements in Release 12.

112.1.1 RF Requirements

The UE shall comply with the RF requirements for CA_4A-29A-30A specified in [2] which are listed in Table B.4.4-1 of [4].

Table 112.1.1-1: Void

112.1.2 RRM Requirements

The UE shall comply with the RRM requirements for CA_4A-92A-30A specified in [3].

112.1.3 Demodulation performance and CSI reporting Requirements

The UE shall comply with the tests applicable for CA_4A-29A-30A among the CA demodulation performance and CSI reporting requirements specified in [2].

113 CA configuration CA_2A-30A Independent of Release

CA configuration CA_2A-30A is specified in Release 12 but is defined as a release-independent CA configuration for Rel-10 upwards.

113.1 CA_2A-30A UE

UEs that conform to Release 11 and support CA_2A-30A shall support the following requirements in Release 12.

113.1.1 RF Requirements

The UE shall comply with the RF requirements for CA_2A-30A specified in [2] which are listed in Table B.4.3-1 of [4].

Table 113.1.1-1: Void

113.1.2 RRM Requirements

The UE shall comply with the RRM requirements for CA_2A-30A specified in [3] which are listed in Table B.2.4-1 of [4].

113.1.3 Demodulation performance and CSI reporting Requirements

The UE shall comply with the tests applicable for CA_2A-30A among the CA demodulation performance and CSI reporting requirements specified in [2], which are listed in Table B.3.2-1 of [4].

114 CA configuration CA_4A-30A Independent of Release

CA configuration CA_4A-30A is specified in Release 12 but is defined as a release-independent CA configuration for Rel-10 upwards.

114.1 CA_4A-30A UE

UEs that conform to Release 11 and support CA_4A-30A shall support the following requirements in Release 12.

114.1.1 RF Requirements

The UE shall comply with the RF requirements for CA_4A-30A specified in [2] which are listed in Table B.4.3-1 of [4].

Table 114.1.1-1: Void

114.1.2 RRM Requirements

The UE shall comply with the RRM requirements for CA_4A-30A specified in [3] which are listed in Table B.2.4-1 of [4].

114.1.3 Demodulation performance and CSI reporting Requirements

The UE shall comply with the tests applicable for CA_4A-30A among the CA demodulation performance and CSI reporting requirements specified in [2], which are listed in Table B.3.2-1 of [4].

115 CA configuration CA_5A-30A Independent of Release

CA configuration CA_5A-30A is specified in Release 12 but is defined as a release-independent CA configuration for Rel-10 upwards.

115.1 CA_5A-30A UE

UEs that conform to Release 11 and support CA_5A-30A shall support the following requirements in Release 12.

115.1.1 RF Requirements

The UE shall comply with the RF requirements for CA_5A-30A specified in [2] which are listed in Table B.4.3-1 of [4].

Table 115.1.1-1: Void

115.1.2 RRM Requirements

The UE shall comply with the RRM requirements for CA_5A-30A specified in [3] which are listed in Table B.2.4-1 of [4].

115.1.3 Demodulation performance and CSI reporting Requirements

The UE shall comply with the tests applicable for CA_5A-30A among the CA demodulation performance and CSI reporting requirements specified in [2], which are listed in Table B.3.2-1 of [4].

116 CA configuration CA_12A-30A Independent of Release

CA configuration CA_12A-30A is specified in Release 12 but is defined as a release-independent CA configuration for Rel-10 upwards.

116.1 CA_12A-30A UE

UEs that conform to Release 11 and support CA_2A-30A shall support the following requirements in Release 12.

116.1.1 RF Requirements

The UE shall comply with the RF requirements for CA_12A-30A specified in [2] which are listed in Table B.4.3-1 of [4].

Table 116.1.1-1: Void

116.1.2 RRM Requirements

The UE shall comply with the RRM requirements for CA_12A-30A specified in [3] which are listed in Table B.2.4-1 of [4].

116.1.3 Demodulation performance and CSI reporting Requirements

The UE shall comply with the tests applicable for CA_12A-30A among the CA demodulation performance and CSI reporting requirements specified in [2], which are listed in Table B.3.2-1 of [4].

117 CA configuration CA_29A-30A Independent of Release

CA configuration CA_29A-30A is specified in Release 12 but is defined as a release-independent CA configuration for Rel-10 upwards.

117.1 CA_29A-30A UE

UEs that conform to Release 11 and support CA_29A-30A shall support the following requirements in Release 12.

117.1.1 RF Requirements

The UE shall comply with the RF requirements for CA_29A-30A specified in [2] which are listed in Table B.4.4-1 of [4].

Table 117.1.1-1: Void

117.1.2 RRM Requirements

The UE shall comply with the RRM requirements for CA_29A-30A specified in [3] which are listed in Table B.2.4-1 of [4].

117.1.3 Demodulation performance and CSI reporting Requirements

The UE shall comply with the tests applicable for CA_29A-30A among the CA demodulation performance and CSI reporting requirements specified in [2], which are listed in Table B.3.2-1 of [4].

118 CA configuration CA_40D Independent of Release

CA configuration CA_40D is specified in Release 12 but is defined as a release-independent CA configuration for Rel-11 upwards for UE Categories specified in [7].

118.1 CA_40D UE

UEs that conform to Release 11 and support CA_40D shall support the following requirements in Release 12.

118.1.1 RF Requirements

The UE shall comply with the RF requirements for CA_40D specified in [2] which are listed in Table B.4.2-1 of [4].

Table 118.1.1-1: Void

118.1.2 RRM Requirements

The UE shall comply with the following RRM Requirements for CA_40D specified in [3] which are listed in Table B.2.2-1 of [4].

118.1.3 Demodulation performance and CSI reporting Requirements

The UE shall comply with the demodulation performance and CSI reporting requirements for CA_40D specified in [2], which are listed in section B.3.2-1 of [4].

119 CA configuration CA_42C Independent of Release

CA configuration CA_42C is specified in Release 12 but is defined as a release-independent CA configuration for Rel-10 upwards.

119.1 CA_42C UE

UEs that conform to Release 11 and support CA_42C shall support the following requirements in Release 12.

119.1.1 RF Requirements

The UE shall comply with the RF requirements for CA_42C specified in [2] which are listed in Table B.4.2-1 of [4].

Table 119.1.1-1: Void

119.1.2 RRM Requirements

The UE shall comply with the RRM Requirements for CA_42C specified in [3] which are listed in Table B.2.2-1 of [4].

119.1.3 Demodulation performance and CSI reporting Requirements

The UE shall comply with the demodulation performance and CSI reporting requirements for CA_42C specified in [2], which are listed in section B.3.2-1 of [4].

120 CA configuration CA_25A-25A Independent of Release

CA configuration CA_25A-25A is specified in Release 11 and Release 12 but is defined as a release-independent CA configuration for Rel-11 upwards.

120.1 CA_25A-25A UE

UEs that conform to Release 11 and support CA_25A-25A shall support the following requirements in Release 12.

120.1.1 RF Requirements

The UE shall comply with the RF requirements for CA_25A-25A specified in [2] which are listed in Table B.4.5-1 of [4].

Table 120.1.1-1: Void

120.1.2 RRM Requirements

The UE shall comply with the RRM requirements for CA_25A-25A specified in [3] which are listed in Table B.2.3-1 of [4].

120.1.3 Demodulation performance and CSI reporting Requirements

The UE shall comply with the demodulation performance and CSI reporting requirements for CA_25A-25A specified in [2], which are listed in section B.3.4-1 of [4].

121 CA configuration CA_41C-41A and CA_41A-41C Independent of Release

CA configurations CA_41C-41A and CA_41A-41C are specified in Release 12 but are defined as release-independent CA configurations for Rel-11 upwards for UE Categories specified in [7].

121.1 CA_41C-41A and CA_41A-41C UE

UEs that conform to Release 11 and support CA_41C-41A and CA_41A-41C shall support the following requirements in Release 12.

121.1.1 RF Requirements

The UE shall comply with the RF requirements for CA_41C-41A and CA_41A-41C specified in [2] which are listed in Table B.4.3-1 of [4].

Table 121.1.1-1:

121.1.2 RRM Requirements

The UE shall comply with the RRM requirements for CA_41C-41A and CA_41A-41C specified in [3] which are listed in Table B.2.2-1 of [4].

121.1.3 Demodulation performance and CSI reporting Requirements

The UE shall comply with the demodulation performance and CSI reporting requirements for CA_41C-41A and CA_41A-41C specified in [2], which are listed in Table B.3.2-1 of [4].

122 CA configuration CA_1A-28A Independent of Release

CA configuration CA_1A-28A is specified in Release 12 but is defined as a release-independent CA configuration for Rel-10 upwards.

122.1 CA_1A-28A UE

UEs that conform to Release 11 and support CA_1A-28A shall support the following requirements in Release 12.

122.1.1 RF Requirements

The UE shall comply with the RF requirements for CA_1A-28A specified in [2] which are listed in Table B.4.3-1 of [4].

122.1.2 RRM Requirements

The UE shall comply with the RRM requirements for CA_1A-28A specified in [3] which are listed in Table B.2.4-1 of [4].

122.1.3 Demodulation performance and CSI reporting Requirements

The UE shall comply with the demodulation performance and CSI reporting requirements for CA_1A-28A specified in [2], which are listed in Table B.3.3-1 of [4].

123 CA configuration CA_5A-13A Independent of Release

CA configuration CA_5A-13A is specified in Release 12 but is defined as a release-independent CA configuration for Rel-10 upwards.

123.1 CA_5A-13A UE

UEs that conform to Release 11 and support CA_5A-13A shall support the following requirements in Release 12.

123.1.1 RF Requirements

The UE shall comply with the RF requirements for CA_5A-13A specified in [2] which are listed in Table B.4.3-1 of [4].

123.1.2 RRM Requirements

The UE shall comply with the RRM requirements for CA_5A-13A specified in [3] which are listed in Table B.2.4-1 of [4].

123.1.3 Demodulation performance and CSI reporting Requirements

The UE shall comply with the tests applicable for CA_5A-13A among the demodulation performance and CSI reporting requirements specified in [2] and listed in Table B.3.2-1 of [4].

124 CA configuration CA_1A-3A-26A Independent of Release

CA configuration CA_1A-3A-26A is specified in Release 12 but is defined as a release-independent CA configuration for Rel-11 upwards for UE Categories specified in [7].

124.1 CA_1A-3A-26A UE

UEs that conform to Release 11 and support CA_1A-3A-26A shall support the following requirements in Release 12.

124.1.1 RF Requirements

The UE shall comply with the RF requirements for CA_1A-3A-26A specified in [2] which are listed in Table B.4.3-1 of [4].

124.1.2 RRM Requirements

The UE shall comply with the RRM requirements for CA_1A-3A-26A specified in [3].

124.1.3 Demodulation performance and CSI reporting Requirements

The UE shall comply with the demodulation performance and CSI reporting requirements for CA_1A-3A-26A specified in [2].

125 CA configuration CA_2C Independent of Release

CA configuration CA_2C is specified in Release 12 but is defined as a release-independent CA configuration for Rel-10 upwards.

125.1 CA_2C UE

UEs that conform to Release 11 and support CA_2C shall support the following requirements in Release 12.

125.1.1 RF Requirements

The UE shall comply with the RF requirements for CA_2C specified in [2] which are listed in Table B.4.2-1 of [4].

125.1.2 RRM Requirements

The UE shall comply with the RRM requirements for CA_2C specified in [3] which are listed in Table B.2.2-1 of [4].

125.1.3 Demodulation performance and CSI reporting Requirements

The UE shall comply with the tests applicable for CA_2C among the demodulation performance and CSI reporting requirements specified in [4] and listed in Table B.3.2-1 of [4].

126 CA configuration CA_2C-29A Independent of Release

CA configuration CA_2C-29A is specified in Release 12 but is defined as a release-independent CA configuration for Rel-11 upwards for UE Categories specified in [7].

126.1 CA_2C-29A UE

UEs that conform to Release 11 and support CA_2C-29A shall support the following requirements in Release 12.

126.1.1 RF Requirements

The UE shall comply with the RF requirements for CA_2C-29A specified in [2] which are listed in Table B.4.3-1 of [4].

126.1.2 RRM Requirements

The UE shall comply with the RRM requirements for 2C-29A specified in [3].

126.1.3 Demodulation performance and CSI reporting Requirements

The UE shall comply with the demodulation performance and CSI reporting requirements for CA_2C-29A specified in [2].

127 CA configuration CA_2A-4A-29A Independent of Release

CA configuration CA_2A-4A-29A is specified in Release 12 but is defined as a release-independent CA configuration for Rel-11 upwards for UE Categories specified in [7].

127.1 CA_2A-4A-29A UE

UEs that conform to Release 11 and support CA_2A-4A-29A shall support the following requirements in Release 12.

127.1.1 RF Requirements

The UE shall comply with the RF requirements for CA_2A-4A-29A specified in [2] which are listed in Table B.4.3-1 of [4].

127.1.2 RRM Requirements

The UE shall comply with the RRM requirements for CA_2A-4A-29A specified in [3].

127.1.3 Demodulation performance and CSI reporting Requirements

The UE shall comply with the demodulation performance and CSI reporting requirements for CA_2A-4A-29A specified in [2].

128 CA configuration CA_7A-8A Independent of Release

CA configuration CA_7A-8A is specified in Release 12 but is defined as a release-independent CA configuration for Rel-10 upwards.

128.1 CA_7A-8A UE

UEs that conform to Release 11 and support CA_7A-8A shall support the following requirements in Release 12.

128.1.1 RF Requirements

The UE shall comply with the RF requirements for CA_7A-8A specified in [2] which are listed in Table B.4.3-1 of [4].

128.1.2 RRM Requirements

The UE shall comply with the RRM requirements for CA_7A-8A specified in [3] which are listed in Table B.2.4-1 of [4].

128.1.3 Demodulation performance and CSI reporting Requirements

The UE shall comply with the tests applicable for CA_7A-8A among the demodulation performance and CSI reporting requirements specified in [2] and listed in Table B.3.2-1 of [4].

129 CA configuration CA_7A-8A-20A Independent of Release

CA configuration CA_7A-8A-20A is specified in Release 12 but is defined as a release-independent CA configuration for Rel-11 upwards for UE Categories specified in [7].

129.1 CA_7A-8A-20A UE

UEs that conform to Release 11 and support CA_7A-8A-20A shall support the following requirements in Release 12.

129.1.1 RF Requirements

The UE shall comply with the RF requirements for CA_7A-8A-20A specified in [2] which are listed in Table B.4.3-1 of [4].

129.1.2 RRM Requirements

The UE shall comply with the RRM requirements for CA_7A-8A-20A specified in [3].

129.1.3 Demodulation performance and CSI reporting Requirements

The UE shall comply with the demodulation performance and CSI reporting requirements for CA_7A-8A-20A specified in [2].

130 CA configuration CA_39C-41A Independent of Release

CA configuration CA_39C-41A is specified in Release 12 but is defined as a release-independent CA configuration for Rel-11 upwards for UE Categories specified in [7].

130.1 CA_39C-41A UE

UEs that conform to Release 11 and support CA_39C-41A shall support the following requirements in Release 12.

130.1.1 RF Requirements

The UE shall comply with the RF requirements for CA_39C-41A specified in [2] which are listed in Table B.4.3-1 of [4].

130.1.2 RRM Requirements

The UE shall comply with the RRM requirements for CA_39C-41A specified in [3].

130.1.3 Demodulation performance and CSI reporting Requirements

The UE shall comply with the demodulation performance and CSI reporting requirements for CA_39C-41A specified in [2].

131 CA configuration CA_39A-41C Independent of Release

CA configuration CA_39A-41C is specified in Release 12 but is defined as a release-independent CA configuration for Rel-11 upwards for UE Categories specified in [7].

131.1 CA_39A-41C UE

UEs that conform to Release 11 and support 39A-41C shall support the following requirements in Release 12.

131.1.1 RF Requirements

The UE shall comply with the RF requirements for CA_39A-41C specified in [2] which are listed in Table B.4.3-1 of [4].

131.1.2 RRM Requirements

The UE shall comply with the RRM requirements for CA_39A-41C specified in [3].

131.1.3 Demodulation performance and CSI reporting Requirements

The UE shall comply with the demodulation performance and CSI reporting requirements for CA_39A-41C specified in [2].

132 CA configuration CA_7A-12A Independent of Release

CA configuration CA_7A-12A is specified in Release 12 but is defined as a release-independent CA configuration for Rel-10 upwards.

132.1 CA_7A-12A UE

UEs that conform to Release 11 and support CA_7A-12A shall support the following requirements in Release 12.

132.1.1 RF Requirements

The UE shall comply with the RF requirements for CA_7A-12A specified in [2] which are listed in Table B.4.3-1 of [4].

132.1.2 RRM Requirements

The UE shall comply with the RRM requirements for CA_7A-12A specified in [3] which are listed in Table B.2.4-1 of [4].

132.1.3 Demodulation performance and CSI reporting Requirements

The UE shall comply with the tests applicable for CA_7A-12A among the demodulation performance and CSI reporting requirements specified in [2] and listed in Table B.3.2-1 of [4].

133 CA configuration CA_4A-7A-12A Independent of Release

CA configuration CA_4A-7A-12A is specified in Release 12 but is defined as a release-independent CA configuration for Rel-11 upwards for UE Categories specified in [7].

133.1 CA_4A-7A-12A UE

UEs that conform to Release 11 and support CA_4A-7A-12A shall support the following requirements in Release 12.

133.1.1 RF Requirements

The UE shall comply with the RF requirements for CA_4A-7A-12A specified in [2] which are listed in Table B.4.3-1 of [4].

133.1.2 RRM Requirements

The UE shall comply with the RRM requirements for CA_4A-7A-12A specified in [3].

133.1.3 Demodulation performance and CSI reporting Requirements

The UE shall comply with the demodulation performance and CSI reporting requirements for CA_4A-7A-12A specified in [2].

134 CA configuration CA_2A-5A-13A Independent of Release

CA configuration CA_2A-5A-13A is specified in Release 12 but is defined as a release-independent CA configuration for Rel-11 upwards for UE Categories specified in [7].

134.1 CA_2A-5A-13A UE

UEs that conform to Release 11 and support CA_2A-5A-13A shall support the following requirements in Release 12.

134.1.1 RF Requirements

The UE shall comply with the RF requirements for CA_2A-5A-13A specified in [2] which are listed in Table B.4.3-1 of [4].

134.1.2 RRM Requirements

The UE shall comply with the RRM requirements for CA_2A-5A-13A specified in [3].

134.1.3 Demodulation performance and CSI reporting Requirements

The UE shall comply with the demodulation performance and CSI reporting requirements for CA_2A-5A-13A specified in [2].

135 CA configuration CA_4A-5A-13A Independent of Release

CA configuration CA_4A-5A-13A is specified in Release 12 but is defined as a release-independent CA configuration for Rel-11 upwards for UE Categories specified in [7].

135.1 CA_4A-5A-13A UE

UEs that conform to Release 11 and support CA_4A-5A-13A shall support the following requirements in Release 12.

135.1.1 RF Requirements

The UE shall comply with the RF requirements for CA_4A-5A-13A specified in [2] which are listed in Table B.4.3-1 of [4].

135.1.2 RRM Requirements

The UE shall comply with the RRM requirements for CA_4A-5A-13A specified in [3].

135.1.3 Demodulation performance and CSI reporting Requirements

The UE shall comply with the demodulation performance and CSI reporting requirements for CA_4A-5A-13A specified in [2].

136 CA configuration CA_1A-18A-28A Independent of Release

CA configuration CA_1A-18A-28A is specified in Release 12 but is defined as a release-independent CA configuration for Rel-11 upwards for UE Categories specified in [7].

136.1 CA_1A-18A-28A UE

UEs that conform to Release 11 and support CA_1A-18A-28A shall support the following requirements in Release 12.

136.1.1 RF Requirements

The UE shall comply with the RF requirements for CA_1A-18A-28A specified in [2] which are listed in Table B.4.3-1 of [4].

136.1.2 RRM Requirements

The UE shall comply with the RRM requirements for CA_1A-18A-28A specified in [3].

136.1.3 Demodulation performance and CSI reporting Requirements

The UE shall comply with the demodulation performance and CSI reporting requirements for CA_1A-18A-28A specified in [2].

137 CA configuration CA_2A-2A-5A Independent of Release

CA configuration CA_2A-2A-5A is specified in Release 12 but is defined as a release-independent CA configuration for Rel-11 upwards for UE Categories specified in [7].

137.1 CA_2A-2A-5A UE

UEs that conform to Release 11 and support CA_2A-2A-5A shall support the following requirements in Release 12.

137.1.1 RF Requirements

The UE shall comply with the RF requirements for CA_2A-2A-5A specified in [2] which are listed in Table B.4.3-1 of [4].

137.1.2 RRM Requirements

The UE shall comply with the RRM requirements for CA_2A-2A-5A specified in [3].

137.1.3 Demodulation performance and CSI reporting Requirements

The UE shall comply with the demodulation performance and CSI reporting requirements for CA_2A-2A-5A specified in [2].

138 CA configuration CA_4A-4A-5A Independent of Release

CA configuration CA_4A-4A-5A is specified in Release 12 but is defined as a release-independent CA configuration for Rel-11 upwards for UE Categories specified in [7].

138.1 CA_4A-4A-5A UE

UEs that conform to Release 11 and support CA_4A-4A-5A shall support the following requirements in Release 12.

138.1.1 RF Requirements

The UE shall comply with the RF requirements for CA_4A-4A-5A specified in [2] which are listed in Table B.4.3-1 of [4].

138.1.2 RRM Requirements

The UE shall comply with the RRM requirements for CA_4A-4A-5A specified in [3].

138.1.3 Demodulation performance and CSI reporting Requirements

The UE shall comply with the demodulation performance and CSI reporting requirements for CA_4A-4A-5A specified in [2].

139 CA configuration CA_4A-4A-7A Independent of Release

CA configuration CA_4A-4A-7A is specified in Release 12 but is defined as a release-independent CA configuration for Rel-11 upwards for UE Categories specified in [7].

139.1 CA_4A-4A-7A UE

UEs that conform to Release 11 and support CA_4A-4A-7A shall support the following requirements in Release 12.

139.1.1 RF Requirements

The UE shall comply with the RF requirements for CA_4A-4A-7A specified in [2] which are listed in Table B.4.3-1 of [4].

139.1.2 RRM Requirements

The UE shall comply with the RRM requirements for CA_4A-4A-7A specified in [3].

139.1.3 Demodulation performance and CSI reporting Requirements

The UE shall comply with the demodulation performance and CSI reporting requirements for CA_4A-4A-7A specified in [2].

Annex A (informative) : Frequency arrangement for overlapping operating bands

The following information is provided in order to assist a UE derive the DL EARFCN and UL EARFCN in a multi-band environment, in which multiple overlapping operating bands may be indicated in the fields *freqBandIndicator* and *multiBandInfoList* of SIB1.

The overlapping bands, independent of release, which may be indicated in a cell are shown in Table A-1 for applicable E-UTRA bands. The DL EARFCN and UL EARFCN are derived according to [2].

Table A-1: Overlapping bands (multi-band environments) for each E-UTRA band

E-UTRA Operating Band	Overlapping E-UTRA operating bands	Duplex Mode
2	25	FDD
3	9	FDD
4	10	FDD
5	18, 19, 26	FDD
9	3	FDD
10	4	FDD
12	17	FDD
17	12	FDD
18	5, 26, 27	FDD
19	5, 26	FDD
25	2	FDD
26	5, 18, 19, 27	FDD
27	18, 26	FDD
33	39	TDD
38	41	TDD
39	33	TDD
41	38	TDD

Annex B (normative): Common Requirements

B.1 Purpose of annex

The purpose of Annex B is to group the requirements that are common for several bands or CA configurations in this specification and use the common tables as references.

B.2 Common RRM requirements

B.2.1 Common RRM requirements for a band independent of release

The requirements and test cases listed in Table B.2.1-1 are specified in [5].

Table B.2.1-1: Common RRM requirements for a band independent of release

Section / Clause	Description
4 ^{Note 1}	E-UTRAN RRC_IDLE state mobility
5	E-UTRAN RRC_CONNECTED state mobility
6 ^{Note 2}	RRC Connection Mobility Control
7 ^{Note 3}	Timing and signalling characteristics
8 ^{Note 4}	UE Measurements Procedures in RRC_CONNECTED State
9 ^{Note 5}	Measurements performance requirements for UE
A.4 ^{Note 1}	E-UTRAN RRC_IDLE state
A.5	E-UTRAN RRC CONNECTED Mode Mobility
A.6 ^{Note 2}	RRC Connection Control
A.7 ^{Note 3}	Timing and Signalling Characteristics
A.8 ^{Note 4}	UE Measurements Procedures
A.9 ^{Note 5}	Measurement Performance Requirements
<p>NOTE 1: All requirements and the corresponding test cases shall apply, except:</p> <ul style="list-style-type: none"> - for supporting the corresponding band in Rel-9 and below: clause 4.3 (Minimization of Drive Tests). <p>NOTE 2: All requirements and the corresponding test cases shall apply, except:</p> <ul style="list-style-type: none"> - for supporting the corresponding band in Rel-8: clauses 6.3 (RRC Connection Release with Redirection), 6.4 (CSG Proximity Indication for E-UTRAN and UTRAN). <p>NOTE 3: All requirements and corresponding test cases shall apply, except those defined in sections 7.4 and 7.5.</p> <p>NOTE 4: All requirements and corresponding test cases shall apply, except:</p> <ul style="list-style-type: none"> - for supporting the corresponding band in Rel-8: clauses 8.1.2.5 (E-UTRAN OTDOA Intra-Frequency RSTD Measurements), 8.1.2.6 (E-UTRAN Inter-Frequency OTDOA Measurements), 8.1.2.7 (E-UTRAN E-CID Measurements). <p>NOTE 5: All requirements and corresponding test cases shall apply, except:</p> <ul style="list-style-type: none"> - for supporting the corresponding band in Rel-8: clauses 9.1.9 (UE Rx-Tx time difference), 9.1.10 (Reference Signal Time Difference). <p>NOTE 6: All requirements and test cases in this table shall apply, except those defined for: carrier aggregation; measurements under time-domain measurement resource restriction with or without CRS assistance information, in addition to the exceptions listed above.</p>	

B.2.2 Common RRM requirements for an intra-band contiguous CA configuration

The requirements and test cases listed in Table B.2.2-1 are specified in [5].

Table B.2.2-1: Common RRM requirements for a single-band CA configuration independent of release

Section / Clause	Description
7.1	UE transmit timing
7.7	SCell Activation and Deactivation Delay for E-UTRA Carrier Aggregation
7.8	Interruptions with Carrier Aggregation
8.2	Capabilities for Support of Event Triggering and Reporting Criteria
8.3	Measurements for E-UTRA carrier aggregation
8.4	OTDOA RSTD Measurements for E-UTRAN carrier aggregation
9.1.11	Carrier aggregation measurement accuracy
9.1.12	Reference Signal Time Difference (RSTD) Measurement Accuracy Requirements for Carrier Aggregation
A.7	Timing and Signalling Characteristics
A.8	UE Measurements Procedures
A.9	Measurement Performance Requirements
NOTE: Only requirements and test cases defined for intra-band contiguous carrier aggregation shall apply.	

B.2.3 Common RRM requirements for an intra-band non-contiguous CA configuration

The requirements and test cases listed in Table B.2.3-1 are specified in [5].

Table B.2.3-1: Common RRM requirements for a single-band CA configuration independent of release

Section / Clause	Description
7.1	UE transmit timing
7.7	SCell Activation and Deactivation Delay for E-UTRA Carrier Aggregation
7.8	Interruptions with Carrier Aggregation
8.2	Capabilities for Support of Event Triggering and Reporting Criteria
8.3	Measurements for E-UTRA carrier aggregation
8.4	OTDOA RSTD Measurements for E-UTRAN carrier aggregation
9.1.11	Carrier aggregation measurement accuracy
9.1.12	Reference Signal Time Difference (RSTD) Measurement Accuracy Requirements for Carrier Aggregation
A.7	Timing and Signalling Characteristics
A.8	UE Measurements Procedures
A.9	Measurement Performance Requirements
NOTE: Only requirements and test cases defined for intra-band non-contiguous carrier aggregation shall apply.	

Editor's note: references to this section are to be revisited when intra-band non-contiguous CA requirements are finalized in TS 36.101.

B.2.4 Common RRM requirements for an inter-band CA configuration

The requirements and test cases listed in Table B.2.4-1 are specified in [5].

Table B.2.4-1: Common RRM requirements for a band-combination CA configuration

Section / Clause	Description
7.1	UE transmit timing
7.7	SCell Activation and Deactivation Delay for E-UTRA Carrier Aggregation
7.8	Interruptions with Carrier Aggregation
8.2	Capabilities for Support of Event Triggering and Reporting Criteria
8.3	Measurements for E-UTRA carrier aggregation
8.4	OTDOA RSTD Measurements for E-UTRAN carrier aggregation
9.1.11	Carrier aggregation measurement accuracy
9.1.12	Reference Signal Time Difference (RSTD) Measurement Accuracy Requirements for Carrier Aggregation
A.7	Timing and Signalling Characteristics
A.8	UE Measurements Procedures
A.9	Measurement Performance Requirements
NOTE: Only requirements and test cases defined for inter-band carrier aggregation shall apply.	

B.3 Common UE performance requirements

B.3.1 Void

Table B.3.1-1: Void

B.3.2 Common UE performance requirements and tests for different CA configurations and combination sets

The requirements and test cases listed in Table B.3.2-1 are specified in [6].

Table B.3.2-1: Common UE performance requirements and tests for different CA configurations and combination sets

Section / Clause	Description
8.2.1.1.1	Single-antenna port performance (FDD)
8.2.2.1.1	Single-antenna port performance (TDD)
8.2.1.3.1	Open-loop spatial multiplexing performance - Minimum Requirement 2 Tx Antenna Port (FDD)
8.2.2.3.1	Open-loop spatial multiplexing performance - Minimum Requirement 2 Tx Antenna Port (TDD)
8.2.1.3.1A	Open-loop spatial multiplexing performance - Soft buffer management test (FDD)
8.2.2.3.1A	Open-loop spatial multiplexing performance - Soft buffer management test (TDD)
8.2.1.4.3	Closed-loop spatial multiplexing performance - Minimum Requirement Multi-Layer Spatial Multiplexing 4 Tx Antenna Port (FDD)
8.2.2.4.3	Closed-loop spatial multiplexing performance - Minimum Requirement Multi-Layer Spatial Multiplexing 4 Tx Antenna Port (TDD)
8.2.1.7	Carrier aggregation with power imbalance (FDD)
8.2.2.7	Carrier aggregation with power imbalance (TDD)
8.7.1	Sustained downlink data rate provided by lower layers (FDD)
8.7.2	Sustained downlink data rate provided by lower layers (TDD)
9.6.1.1	Additional requirements for carrier aggregation - Periodic reporting on multiple cells (Cell Specific Reference symbols) (FDD)
9.6.1.2	Additional requirements for carrier aggregation - Periodic reporting on multiple cells (Cell Specific Reference symbols) (TDD)
Note 1:	The applicability of requirements for different CA configurations and bandwidth combination sets is specified in Section 8.1.2.3 and 9.1.12 in [6].

B.3.3 Void

Table B.3.3-1: Void

B.3.4 Void

B.4 Common UE RF requirements

B.4.1 Common UE RF requirements for a band independent of release

The requirements and test cases listed in Table B.4.1-1 are specified in [6].

Table B.4.1-1: Common UE RF requirements for a band independent of releaseSection / Clause	Description
5.5	Operating bands
5.6	Channel bandwidth
5.7	Channel arrangement
6.2	Transmit power
6.3	Output power dynamics
6.5 (NOTE)	Transmit signal quality
6.6	Output RF spectrum emissions
6.7	Transmit intermodulation
7.3	Reference sensitivity power level
7.4	Maximum input level
7.5	Adjacent Channel Selectivity (ACS)
7.6	Blocking characteristics
7.7	Spurious response
7.8	Intermodulation characteristics
7.9	RX spurious emissions
NOTE: Requirements in section 6.5.2.2.1 and 6.5.2.3.1 as specified in [8] apply	

B.4.2 Common UE RF requirements for an intra-band contiguous CA configuration

The requirements and test cases listed in Table B.4.2-1 are specified in [6].

Table B.4.2-1: Common UE RF requirements for an intra-band contiguous CA configuration independent of release

Section / Clause	Description
5.5A	Operating bands for CA
5.6A	Channel bandwidths per operating band for CA
5.7.1A	Channel spacing for CA
5.7.2A	Channel raster for CA
5.7.4A	TX–RX frequency separation for CA
6.2.2A	UE maximum output power for CA
6.2.3A	UE maximum output power for modulation/channel bandwidth for CA
6.2.4A	UE maximum output power with additional requirements for CA
6.2.5A	Configured transmitted power for CA
6.3.2A	UE Minimum output power for CA
6.3.3A	UE Transmit OFF power for CA
6.3.4A	ON/OFF time mask for CA
6.3.5A	Power control for CA
6.5.1A	Frequency error for CA
6.5.2A	Transmit modulation quality for CA
6.6.1A	Occupied bandwidth for CA
6.6.2.1A	Spectrum emission mask for CA
6.6.2.2A	Additional Spectrum Emission mask for CA
6.6.2.3.2A	UTRA ACLR for CA
6.6.2.3.3A	E-UTRA ACLR for CA
6.6.3.1A	Minimum requirements for CA
6.6.3.2A	Spurious emission band UE co-existence for CA
6.6.3.3A	Additional spurious emissions for CA
6.7.1A	Minimum requirement for CA
7.3.1A	Reference sensitivity for CA
7.4.1A	Maximum input level for CA
7.5.1A	Adjacent Channel Selectivity (ACS) for CA
7.6.1.1A	In-band blocking for CA
7.6.2.1A	Out-of-band blocking for CA
7.6.3.1A	Narrow band blocking for CA
7.7.1A	Spurious response for CA
7.8.1A	Wideband intermodulation for CA
7.10.1A	Receiver response for CA

B.4.3 Common UE RF requirements for an inter-band CA configuration

The requirements and test cases listed in Table B.4.3-1 are specified in [6].

Table B.4.3-1: Common UE RF requirements for an inter-band CA configuration independent of release

Section / Clause	Description
5.5A	Operating bands for CA
5.6A.1	Channel bandwidths per operating band for CA
5.7.2A	Channel raster for CA
6.2.2A	UE maximum output power for CA
6.2.3A	UE maximum output power for modulation/channel bandwidth for CA
6.2.5	Configured transmitted power
7.3.1A	Reference sensitivity for CA
7.4.1A	Maximum input level for CA
7.5.1A	Adjacent Channel Selectivity (ACS) for CA
7.6.1.1A	In-band blocking for CA
7.6.2.1A	Out-of-band blocking for CA
7.6.3.1A	Narrow band blocking for CA
7.7.1A	Spurious response for CA
7.8.1A	Wideband intermodulation for CA

B.4.4 Common UE RF requirements for an inter-band CA configuration including an operating band without uplink band

The requirements and test cases listed in Table B.4.4-1 are specified in [6].

Table B.4.4-1: Common UE RF requirements for an inter-band CA configuration including an operating band without uplink band independent of release

Section / Clause	Description
5.5	Operating bands
5.5A	Operating bands for CA
5.6A.1	Channel bandwidths per operating band for CA
5.7	Channel arrangement
6.2.2A	UE maximum output power for CA
6.2.3A	UE maximum output power for modulation/channel bandwidth for CA
6.2.5	Configured transmitted power
7.3.1A	Reference sensitivity for CA
7.4.1A	Maximum input level for CA
7.5.1A	Adjacent Channel Selectivity (ACS) for CA
7.6.1.1A	In-band blocking for CA
7.6.2.1A	Out-of-band blocking for CA
7.6.3.1A	Narrow band blocking for CA
7.7.1A	Spurious response for CA
7.8.1A	Wideband intermodulation for CA

B.4.5 Common UE RF requirements for an intra-band non-contiguous CA configuration

The requirements and test cases listed in Table B.4.5-1 are specified in [6].

Table B.4.5-1: Common UE RF requirements for an intra-band non-contiguous CA configuration independent of release

Section / Clause	Description
5.5A	Operating bands for CA
5.6A1	Channel bandwidths per operating band for CA
5.7.2A	Channel raster for CA
6.2.2A	UE maximum output power for CA
6.2.3A	UE maximum output power for modulation/channel bandwidth for CA
7.3.1A	Reference sensitivity for CA
7.4.1A	Maximum input level for CA
7.5.1A	Adjacent Channel Selectivity (ACS) for CA
7.6.1.1A	In-band blocking for CA
7.6.2.1A	Out-of-band blocking for CA
7.6.3.1A	Narrow band blocking for CA
7.7.1A	Spurious response for CA
7.8.1A	Wideband intermodulation for CA

Annex C (informative): Change history

Table C.1: Change History

Date	TSG#	TSG Doc.	CR	Subject	Old	New
11-2009	RP#46	RP-091141		TS36.307 V0.1.0 approved by RAN (Originally in R4-095022)	-	0.1.0
02-2010	R4#54	R4-100419		For release 9 version, replace sections 4 to 6 as 'Void' and add a new void section as section 7.	0.1.0	0.2.0
03-2010	RP#47	RP-100162		TS36.307 v1.0.0 for approval	0.2.0	1.0.0
03-2010	RP#47	RP-100162		Approved by RAN	1.0.0	9.0.0
09-2010	RP-49	RP-100927	2	CR LTE_TDD_2600_US spectrum band definition additions to TS 36.307 V900	9.0.0	9.1.0
				Correction of section numbering	9.1.0	9.1.1
12-2010	RP-50	RP-101356	008	Band 42 and 43 parameters for UMTS/LTE 3500 (TDD) for TS 36.307	9.1.1	9.2.0
12-2010	RP-50	RP-101361	005	Introduction of L-band in TS 36.307	9.1.1	9.2.0
12-2010	RP-50	RP-101344	016	CR creating the rel-10 of the 36.307 specification	9.2.0	9.3.0
12-2010	RP-50	RP-101356	012	Band 42 and 43 parameters for UMTS/LTE 3500 (TDD) for TS 36.307	9.2.0	9.3.0
12-2010	RP-50			Raised to Rel-10 with no technical change	9.3.0	10.0.0
01-2011				Correction to history table	10.0.0	10.0.1
06-2011	RP-52	RP-110804	015	Add Expanded 1900 MHz Band (Band 25) in 36.307	10.0.1	10.1.0
06-2011	RP-52	RP-110812	022	Add 2GHz S-Band (Band 23) in 36.307 (Rel 10)	10.0.1	10.1.0
09-2011	RP-53	RP-111255	025	Add Band 22 for LTE/UMTS 3500 (FDD) to TS 36.307	10.1.0	10.2.0
03-2012	RP-55	RP-120305	029	Introduction of Band 26/XXVI to TS 36.307	10.2.0	11.0.0
2012-06	RP-56	RP-120789	043	Introduction of CA_1A-19A to TS 36.307	11.0.0	11.1.0
2012-06	RP-56	RP-120793	049	Introduction of APAC700(FDD) into TS 36.307 Rel-11	11.0.0	11.1.0
2012-06	RP-56	RP-120793	053	Introduction of APAC700(TDD) into TS 36.307 Rel-11	11.0.0	11.1.0
2012-06	RP-56	RP-120791	057	Introduction of e850_LB (Band 27) to TS 36.307	11.0.0	11.1.0
2012-09	RP-57	RP-121335	059	Introduction of CA_1A-21A to TS 36.307	11.1.0	11.2.0
2012-09	RP-57	RP-121295	070r1	Relation between EARFCN for overlapping bands with multiple FBI indication	11.1.0	11.2.0
2012-09	RP-57	RP-121338	072	36.307 CR for LTE_CA_B7	11.1.0	11.2.0
2012-09	RP-57	RP-121337	073	TS 36.307 CR for CA_38	11.1.0	11.2.0
2012-09	RP-57	RP-121327	074	Introduction of CA_B7_B20 in 36.307	11.1.0	11.2.0
2012-09	RP-57	RP-121329	075	Introduction of CA band combination Band3 + Band5 to TS 36.307	11.1.0	11.2.0
2012-09	RP-57	RP-121331	076	Introduction of CA_3A-20A to TS 36.307	11.1.0	11.2.0
2012-09	RP-57	RP-121334	077	Add requirements for inter-band CA of B_1-18 in TS36.307	11.1.0	11.2.0
2012-09	RP-57	RP-121333	078	Introduction of CA_8_20 RF requirements into TS36.307	11.1.0	11.2.0
2012-09	RP-57	RP-121324	079	Introduction of CA_B3_B7 in 36.307	11.1.0	11.2.0
2012-12	RP-58	RP-121890	086	Introduction of CA_4A-5A into 36.307	11.2.0	11.3.0
2012-12	RP-58	RP-121889	088	Introduction of CA band combination Band4 + Band13 to TS 36.307 (Rel-11)	11.2.0	11.3.0
2012-12	RP-58	RP-121896	091	Introduction of Band 5 + Band 17 inter-band CA configuration into 36.307	11.2.0	11.3.0
2012-12	RP-58	RP-121884	092	Introduction of CA_3A-8A to TS 36.307	11.2.0	11.3.0
2012-12	RP-58	RP-121894	093	Introduction of CA_B5_B12 in 36.307	11.2.0	11.3.0
2012-12	RP-58	RP-121887	095	Introduction of CA_4-12 into TS 36.307 (Rel-11)	11.2.0	11.3.0
2012-12	RP-58	RP-121882	097	[Rel-11] Introduction of inter-band CA_11-18 into TS36.307	11.2.0	11.3.0
2012-12	RP-58	RP-121861	099	Release-independent implementation of carrier aggregation configuration CA_4-7	11.2.0	11.3.0
2012-12	RP-58	RP-121901	101	Introduction of Band 29	11.2.0	11.3.0
2012-12	RP-58	RP-121718	0102	Introduction of CA band combination Band2 + Band17 to TS 36.307 (Rel-11)	11.2.0	11.3.0
2012-12	RP-58	RP-121720	0104	Introduction of CA band combination Band4 + Band17 to TS 36.307 (Rel-11)	11.2.0	11.3.0
2013-06	RP-60	RP-130771	107r1	Introduction of CA 1+8 into TS36.307(Rel-11)	11.3.0	11.4.0
2013-06	RP-60	RP-130782	110r1	Introduction of LTE Advanced inter-band Carrier Aggregation of Band 3 and Band 28 to TS 36.307 Rel-11	11.3.0	11.4.0
2013-06	RP-60	RP-130785	113	Introduction of LTE Advanced inter-band Carrier Aggregation	11.3.0	11.4.0

				of Band 23 and Band 29 to TS 36.307 (Rel-11)		
2013-06	RP-60	RP-130779	116	Introduction of LTE Advanced inter-band Carrier Aggregation of Band 3 and Band 26 to TS 36.307 (Rel-11)	11.3.0	11.4.0
2013-06	RP-60	RP-130777	119	Introduction of CA_3A-19A to TS 36.307	11.3.0	11.4.0
2013-06	RP-60	RP-130783	122	Introduction of CA_19A-21A to TS 36.307	11.3.0	11.4.0
2013-06	RP-60	RP-130787	128	Introduction of CA_4A-4A into 36.307 Rel-11	11.3.0	11.4.0
2013-06	RP-60	RP-130775	130	Introduction of CA_2A-13A to TS 36.307	11.3.0	11.4.0
2013-06	RP-60	RP-130791	135r1	Introduction of Band 30	11.3.0	11.4.0
2013-06	RP-60	RP-130790	142	Introduction of LTE 450 into TS 36.307 R11	11.3.0	11.4.0
09-2013	RP-61	RP-131300	152	36.307 CR for LTE_CA_C_B3 (Rel-11)	11.4.0	11.5.0
09-2013	RP-61	RP-131303	155	Band 31 release independence for UE demodulation performance	11.4.0	11.5.0
09-2013	RP-61	RP-131285	158	[Rel-11] Modify requirements for CA_1A-18A in TS36.307	11.4.0	11.5.0
09-2013	RP-61	RP-131296	159	[Rel-11] Add requirements for CA_1A-26A into TS36.307	11.4.0	11.5.0
09-2013	RP-61	RP-131297	162	Introduction of CA_2A-4A to TS 36.307	11.4.0	11.5.0
09-2013	RP-61	RP-131298	166	Introduction of inter-band CA Band 2+5	11.4.0	11.5.0
12-2013	RP-62	RP-131965	174	Introduction of CA_23A-23A to TS 36.307	11.5.0	11.6.0
12-2013	RP-62	RP-131946	177r1	Introduction of CA band combination Band2 + Band12 to TS 36.307	11.5.0	11.6.0
12-2013	RP-62	RP-131954	180r1	Introduction of CA band combination Band12 + Band25 to TS 36.307	11.5.0	11.6.0
12-2013	RP-62	RP-131959	183	Introduction of LTE_CA_C_B27 to 36.307 (Rel-11)	11.5.0	11.6.0
12-2013	RP-62	RP-131939	189r1	Correction to release independent specification	11.5.0	11.6.0
12-2013	RP-62	RP-131957	191	Introduction of CA_23B to TS 36.307	11.5.0	11.6.0
12-2013	RP-62	RP-131961	193	Introduction of Intra-band non-contiguous CA in band 3 to TS 36.307	11.5.0	11.6.0
12-2013	RP-62	RP-131950	199	Introduction of CA band combination Band5 + Band25 to TS 36.307	11.5.0	11.6.0
12-2013	RP-62	RP-131948	203r1	Introduction of CA band combination B5 + B7 to TS 36.307	11.5.0	11.6.0
12-2013	RP-62	RP-131952	206	Introduction of CA band combination B7 + B28 to TS 36.307	11.5.0	11.6.0
12-2013	RP-62	RP-131925	215	UE performance requirements in release independent specification for CA	11.5.0	11.6.0
12-2013	RP-62	RP-131963	218	Introduction of CA_7A-7A to TS 36.307 Rel-11	11.5.0	11.6.0
12-2013	RP-62	RP-131924	223	Introducing 'General' clause with note referring to note in clause 4.4 in TS36.101, editorial corrections and modifications to Forward and Scope clauses	11.5.0	11.6.0
03-2014	RP-63	RP-140375	231r1	CR on UE performance requirements in release independent specification	11.6.0	11.7.0
03-2014	RP-63	RP-140371	234	Release independence of Band 14 HPUE	11.6.0	11.7.0
03-2014	RP-63	RP-140375	244r1	Correction to release independent specification	11.6.0	11.7.0
03-2014	RP-63	RP-140386	226r2	Introduction of CA band combination Band 3 and Band 27 to TS 36.307	11.6.0	11.7.0
03-2014	RP-63	RP-140188	247	Addition of bandwidth combination set for CA_2A-29A and CA_4A-29A	11.6.0	11.7.0
03-2014	RP-63	RP-140387	196r1	Introduction of CA_39A-41A to TS 36.307	11.6.0	11.7.0
03-2014	RP-63	RP-140388	209r2	Introduction of CA_39C to TS 36.307	11.6.0	11.7.0
06-2014	RP-64	RP-140911	258	Introduction of CA band combination Band 1 and Band 5 to TS 36.307	11.7.0	11.8.0
06-2014	RP-64	RP-140918	299	Correction of Common RRM requirements for CA in release independent specification (Rel-11)	11.7.0	11.8.0
06-2014	RP-64	RP-140926	279	Introduction of Band 20+32 CA	11.7.0	11.8.0
06-2014	RP-64	RP-140931	264	Introduction of CA 1+11 to 36.307 (Rel-11)	11.7.0	11.8.0
06-2014	RP-64	RP-140933	274	Introduction of CA band combination Band 4 and Band 27 to TS 36.307	11.7.0	11.8.0
06-2014	RP-64	RP-140935	277	Addition of bandwidth combination sets for CA_3A-5A, CA_4A-5A, and CA_4A-12A into 36.307	11.7.0	11.8.0
06-2014	RP-64	RP-140938	290	Introduction of CA_2A-2A to TS 36.307 Rel-11	11.7.0	11.8.0
06-2014	RP-64	RP-140940	318	Introduction of LTE_CA_NC_B42 into 36.307	11.7.0	11.8.0
06-2014	RP-64	RP-140942	339	Introduction of CA band combination Band 1 and Band 20 to TS 36.307	11.7.0	11.8.0
06-2014	RP-64	RP-140942	252	Introduction of CA band combination Band 1 and Band 20 to TS 36.307	11.7.0	11.8.0
06-2014	RP-64	RP-140943	346	Introduction of CA band combination CA_41D into TS 36.307 (Rel-11)	11.7.0	11.8.0
06-2014	RP-64	RP-140946	342	Introduction of CA_42C to TS 36.307	11.7.0	11.8.0
06-2014	RP-64	RP-140947	302	Introduction of Band 40D in release independent specification (Rel-11)	11.7.0	11.8.0
06-2014	RP-64	RP-140953	0308	Introduction of a new CA_7C bandwidth combination set into 36.307 (Rel-11)	11.7.0	11.8.0

09-2014	RP-65	RP-141111	0389r1	[Rel-11] Introduction of inter-band CA_18-28 into TS36.307	11.8.0	11.9.0
09-2014	RP-65	RP-141199	0365r1	Introduction of CA_B1_B3_B19 into TS 36.307 (Rel-11)	11.8.0	11.9.0
09-2014	RP-65	RP-141204	0362r1	Introduction of CA_B1_B3 into TS 36.307 (Rel-11)	11.8.0	11.9.0
09-2014	RP-65	RP-141330	0428r1	Introduction of CA_1A-7A into 36.307 (Rel-11)	11.8.0	11.9.0
09-2014	RP-65	RP-141339	0375r2	Introduction of CA_B1_B5_B7 into TS 36.307 (Rel-11)	11.8.0	11.9.0
09-2014	RP-65	RP-141466	0431	Introduction of 3 DL CA for Band 1+7+20	11.8.0	11.9.0
09-2014	RP-65	RP-141527	414r1	CR for 36.307 on CA UE performance requirement in Rel-11	11.8.0	11.9.0
09-2014	RP-65	RP-141538	342r2	Introduction of CA_42C to TS 36.307	11.8.0	11.9.0
09-2014	RP-65	RP-141540	302r2	Introduction of Band 40D in release independent specification (Rel-11)	11.8.0	11.9.0
09-2014	RP-65	RP-141541	412	CR on UE performance requirement for Band 31 for 36.307 Rel-11	11.8.0	11.9.0
09-2014	RP-65	RP-141551	359	Introduction of CA 8+11 to 36.307 (Rel-11)	11.8.0	11.9.0
09-2014	RP-65	RP-141552	378	Introduction of CA_41A-42A to TS 36.307	11.8.0	11.9.0
09-2014	RP-65	RP-141553	380	Introduction of a new bandwidth combination set for CA_25A-25A into 36.307	11.8.0	11.9.0
09-2014	RP-65	RP-141554	417r1	Introduction of requirements for 3DL inter-band carrier aggregation (FDD) and 2DL fallback	11.8.0	11.9.0
09-2014	RP-65	RP-141554	420r1	Introduction of requirements for 3DL inter-band carrier aggregation including Band 30 and 2DL fallback	11.8.0	11.9.0
09-2014	RP-65	RP-141555	383r1	Introduction of 3 Band Carrier Aggregation of Band 1,Band 3 and Band 5 to TS 36.307(Rel.11)	11.8.0	11.9.0
09-2014	RP-65	RP-141556	356r1	Introduction of 3 Band Carrier Aggregation (3DL/1UL) of Band 1, Band 3 and Band 8 to TS 36.307	11.8.0	11.9.0
09-2014	RP-65	RP-141558	401	Introduction of CA band combination Band 1, Band 3 and Band 20 to TS 36.307	11.8.0	11.9.0
09-2014	RP-65	RP-141560	351	Introduction of new CA_40C bandwidth combination set into 36.307	11.8.0	11.9.0
09-2014	RP-65	RP-141561	353r2	CR to 36.307 Rel-11: Introduction of CA_41C-41A and CA_41A-41C and New BW Combination Set for CA_41C	11.8.0	11.9.0
12-2014	RP-66	RP-142142	439r1	UE RF requirements in the release independent spec	11.9.0	11.10.0
12-2014	RP-66	RP-142184	442	Introduction of CA band combinations for dual uplink to TS 36.307 Rel-11	11.9.0	11.10.0
12-2014	RP-66	RP-142182	447	[Rel-11] Introduction of inter-band CA_1-28 into TS36.307	11.9.0	11.10.0
12-2014	RP-66	RP-142189	454	CR for TR 36.307: LTE_CA_B5_B13	11.9.0	11.10.0
12-2014	RP-66	RP-142190	457r2	Introduction of additional band combinations for 3DL inter-band CA	11.9.0	11.10.0